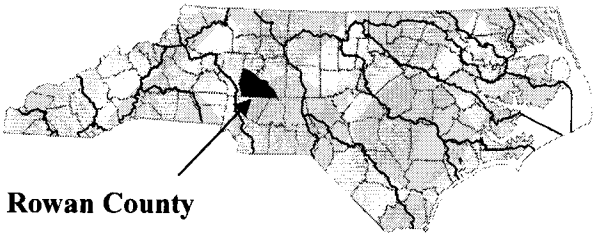
# FLOOD INSURANCE STUDY

**A Report of Flood Hazards in**

## ROWAN COUNTY, NORTH CAROLINA

**AND INCORPORATED AREAS**




| Community Name | Community Number | River Basin |
|---|---|---|
| China Grove, Town of | 370210 | Yadkin |
| Cleveland, Town of | 370097 | Yadkin |
| East Spencer, Town of | 370211 | Yadkin |
| Faith, Town of | 370352 | Yadkin |
| Granite Quarry, Town of | 370212 | Yadkin |
| Landis, Town of | 370213 | Yadkin |
| Rockwell, Town of | 370214 | Yadkin |
| Rowan County (Unincorporated Areas) | 370351 | Yadkin |
| Salisbury, City of | 370215 | Yadkin |
| Spencer, Town of | 370216 | Yadkin |

NORTH CAROLINA
Cooperating Technical State
FEMA'S COOPERATING TECHNICAL PARTNER

**VOLUME 1 OF 3**

**June 16, 2009**

**Federal Emergency Management Agency**
**State of North Carolina**

**Flood Insurance Study Number**
**37159CV001A**

**www.fema.gov and www.ncfloodmaps.com**

# FOREWORD

This countywide Flood Insurance Study (FIS) Report was produced through a unique cooperative partnership between the State of North Carolina and the Federal Emergency Management Agency (FEMA). The State of North Carolina has implemented a long-term approach to floodplain management to decrease the costs associated with flooding. This is demonstrated by the State's commitment to map floodplain areas at the state level. As a part of this effort, the State of North Carolina has joined with FEMA in a Cooperating Technical State (CTS) agreement to produce and maintain this FIS Report and the accompanying digital Flood Insurance Rate Map (FIRM) for North Carolina.

# NOTICE TO FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study (FIS) may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

Part of this FIS may be revised by the Letter of Map Revision process, which does not involve republication or redistribution of the FIS. It is, therefore, the responsibility of the user to consult with community officials and to check the community repository to obtain the most current FIS components.

The following is a list of the publication dates of this Countywide FIS Report starting with the initial Report accompanying the North Carolina Statewide FIRM:

June 16, 2009

This FIS has been produced as part of the North Carolina Floodplain Mapping Program. Rowan County, North Carolina, falls under the administrative jurisdiction of Region IV of the Federal Emergency Management Agency (FEMA). Questions concerning this FIS may be directed to the North Carolina Floodplain Mapping Program at www.ncfloodmaps.com, the FEMA Map Assistance Center by calling the toll-free information line at 1-877-FEMA MAP (1-877-336-2627), or by contacting the FEMA Regional Office at the following address:

FEMA, Federal Insurance and Mitigation Administration
Koger Center - Rutgers Building
3003 Chamblee Tucker Road
Atlanta, Georgia 30341
(770) 220-5400

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# Section 1.0 - Introduction

## 1.1 The National Flood Insurance Program

In 1968, Congress created the National Flood Insurance Program (NFIP) in response to the rising cost of taxpayer-funded disaster relief for flood victims and the increasing amount of damage caused by floods. The NFIP makes federally backed flood insurance available in communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage. Federally backed flood insurance is available in more than 19,000 communities across the United States and its territories.

The NFIP is managed by the Federal Insurance and Mitigation Administration of the Federal Emergency Management Agency (FEMA). The Federal Insurance and Mitigation Administration manages the insurance component of the NFIP and oversees the flood hazard mapping and the floodplain management aspects of the program.

The NFIP, through involvement with communities, the insurance industry, and the lending industry, helps reduce flood damage by nearly $800 million a year. Further, buildings constructed in compliance with NFIP building standards suffer approximately 80% less damage annually than those not built in compliance. In addition, every $3 paid in flood insurance claims saves $1 in disaster assistance payments. The NFIP is self-supporting for the average historical loss year, which means that operating expenses and flood insurance claims are not paid by the taxpayer, but through premiums collected for flood insurance policies.

Additional information of interest to homeowners, community officials, insurance companies, lenders, and study contractors is available in Section 9.0 of this FIS Report and on the NFIP Internet homepage at http://www.fema.gov/business/nfip/.

## 1.2 Purpose of this Flood Insurance Study

Flood Insurance Studies (FISs) are one of the primary means by which the NFIP administers the National Flood Insurance Act of 1968, the Flood Disaster Protection Act of 1973, and the National Flood Insurance Reform Act of 1994. FISs develop flood risk data that are used to establish actuarial flood insurance rates. The information in this FIS Report will also be used by Rowan County and the jurisdictions therein (hereinafter referred to collectively as Rowan County) to facilitate the adoption and maintenance of floodplain management ordinances, which form the basis of communities' continued participation in the NFIP. Minimum requirements for participation in the NFIP are set forth in Title 44, Part 60, Section 3 of the Code of Federal Regulations (44 CFR 60.3). In some States and/or communities, floodplain management criteria or regulations may exist that are more restrictive than the minimum Federal requirements. In such cases, the more restrictive criteria will take precedence, and the State and/or community (or other jurisdictional agency) will be able to explain them.

This FIS investigates the existence and severity of flood hazards in, or revises and updates previous FISs for, the geographic area of Rowan County, North Carolina, including the jurisdictions listed in Table 1.

**Table 1—Jurisdictions in Rowan County**

| Community | Included in this FIS | Not Included in this FIS | If Not Included, Location of Flood Hazard/Flood Insurance Rate Data |
|---|---|---|---|
| Town of China Grove | X | | |
| Town of Cleveland | X | | |
| Town of East Spencer | X | | |
| Town of Faith | X | | |
| Town of Granite Quarry | X | | |
| City of Kannapolis | | X | Cabarrus County |
| Town of Landis | X | | |
| Town of Rockwell | X | | |
| Rowan County (Unincorporated Areas) | X | | |
| City of Salisbury | X | | |
| Town of Spencer | X | | |

## 1.3 FIS Components

A Flood Insurance Study (FIS) is an analysis of flood hazards, typically presented as a set of Flood Insurance Rate Map (FIRM) panels and the FIS Report, which includes a set of Flood Profiles.

### Flood Insurance Rate Map

The FIRM shows 1% annual chance (100-year) and 0.2% annual chance (500-year) floodplains, using tints, screens, and symbols. Floodways, the locations of selected cross sections used in the hydraulic analyses and floodway computations, and Velocity Zones are shown where applicable. The FIRM for North Carolina has been produced digitally, and there are separate data layers that are available in the public domain via the Internet.

### Flood Insurance Study Report

The FIS Report provides a context for the information shown on the FIRM, as well as a summary of the data upon which the analyses are based. It also includes an index of sources of additional information on the NFIP.

### Flood Profiles

A Flood Profile is provided for every stream studied in detail, showing the continuum of calculated flood elevations of various recurrence periods along the studied reaches. Flood Profiles are the documents that serve as a basis for determining flood insurance rate zones.

Flood events of a magnitude expected to occur with a 10%, 2%, 1%, or 0.2% annual chance have been selected as having special significance for developing sound floodplain management programs. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10%, 2%, 1%, and 0.2% chance, respectively, of being equaled in any given year. Therefore, FIS Reports typically determine water-surface elevations for floods with these probabilities. The FIRM delineates 1% and 0.2% annual chance floodplains and 1% annual chance floodway boundaries, and depicts 1% annual chance flood elevations, rounded to the nearest foot, to assist in developing floodplain management measures.

## 2.1 Floodplains

To provide a national standard without regional discrimination, the 1% annual chance flood has been adopted by FEMA as the base flood for floodplain management purposes. A 1% annual chance flood, or base flood, is defined as that having a 1% chance of being equaled or exceeded in any given year. The 1% annual chance floodplains shown on the FIRM identify areas that are expected to be inundated by the 1% annual chance flood. This 1% annual chance floodplain is also called a Special Flood Hazard Area (SFHA), where the NFIP's floodplain management regulations must be enforced by the community as a condition of participation in the NFIP. The 0.2% annual chance floodplain is employed to indicate additional areas of flood risk associated with exceptionally severe floods.

## 2.2 Floodways

Encroachment on floodplains such as that caused by placement of structures and fill reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For purposes of the NFIP, floodways are provided as a tool to assist local communities in this aspect of floodplain management. Under this concept, the 1% annual chance riverine floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights. Figure 1, "Floodway Schematic," illustrates this principle. Minimum Federal standards limit such increases to 1.0 foot, provided that hazardous velocities are not produced. The floodways in this FIS are presented to local agencies as a minimum standard that can be adopted directly or that can be used as a basis for additional encroachment studies.

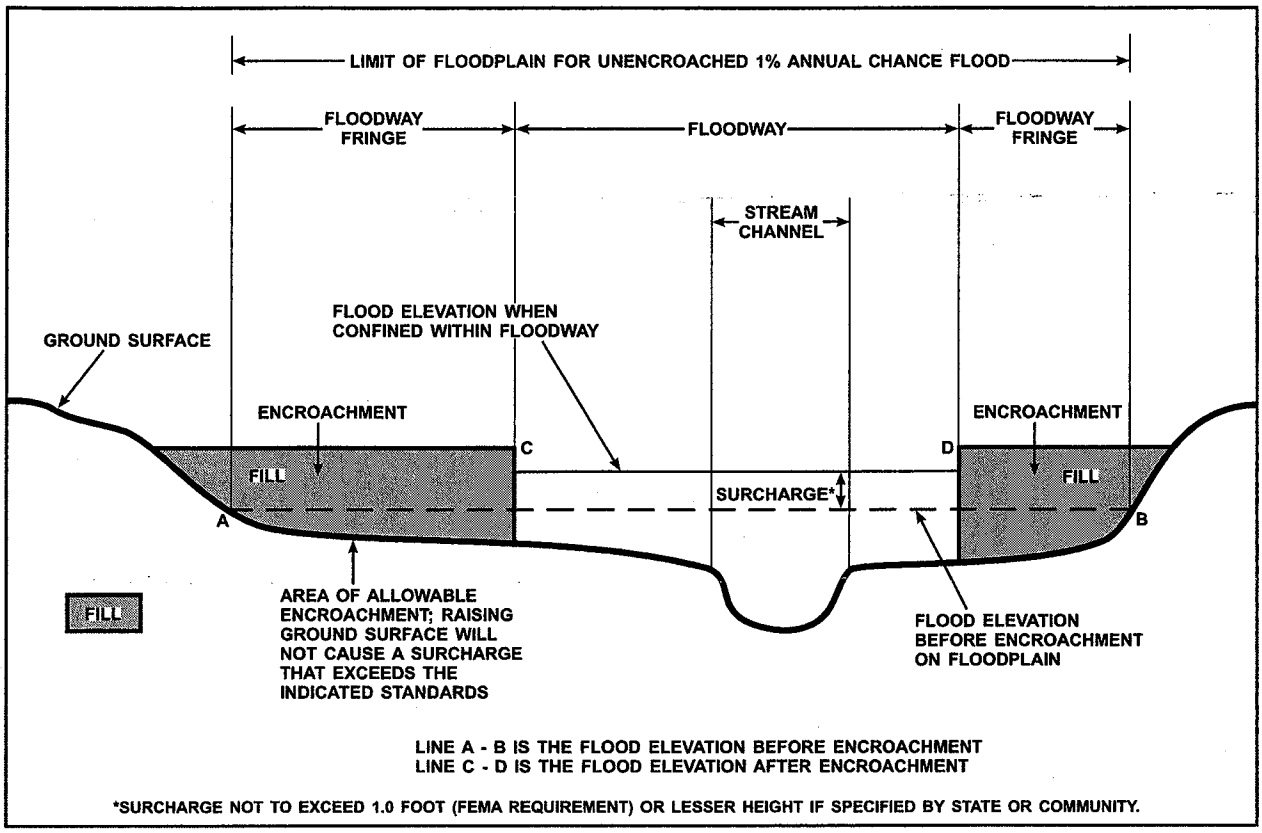


**Figure 1—Floodway Schematic**

## 2.3 Base Flood Elevations

Base Flood Elevations (BFEs) are shown on the FIRM and represent rounded, whole-foot elevations at selected locations along flooding sources that have been studied in detail. Flood Profiles in this FIS Report provide a comprehensive and definitive tool to determine specific flood elevations along a stream studied by detailed methods. In order to reduce the risk of damage from floods up to the base (1% annual chance) flood, communities are advised to consider these elevations when issuing building permits for structures.

## 2.4 Watershed Characteristics

Because a FIS is a probability analysis that may not account for some of the factors listed below, communities are strongly encouraged to consider adopting more restrictive or higher floodplain management criteria or ordinances than the minimum Federal requirements. Communities may also increase the validity of their flood hazard data by investing in continuous maintenance of river gages (see the **Data Validity and Reliability** paragraph below). If the U.S. Geological Survey (USGS) or other agencies do not maintain gages on the flooding sources of interest, partnerships with the USGS may be pursued, or local gages may be installed. For more information, see Section 9.0 of this report.

This flood hazard study represents an analysis of certain watershed characteristics, some of which are summarized as follows:

### Drainage Area

In general, streams that drain larger areas have greater flood hazards. FISs, in North Carolina, do not typically analyze flood hazards in places with rural drainage areas of less than one square mile and within urban drainage areas of less than ½ square mile.

### Soil Permeability and Infiltration

Differences in the types of soil and the amount of vegetation in a watershed have a significant effect on the amount of water that the soil can absorb; soils with a high sand content absorb much more water than soils with a high clay content. The presence of vegetation increases infiltration; the presence of pavement decreases infiltration and also speeds runoff to receiving waters. As soil permeability and infiltration decrease, the volume and rate of overland flow increases.

### Soil Moisture Conditions

In addition to soil permeability and infiltration, the level of the water table helps determine the saturation point, beyond which no water is absorbed. As rainfall duration increases, the height of the water table increases.

### Channel and Floodplain Geometry

The geometric contour of a streambed, termed channel geometry, and the geometric contour of a floodplain determine the volume of water that a channel can hold and partially determine the rate at which water flows through it.

### Channel and Floodplain Roughness

The roughness of a surface affects the characteristics of runoff whether the water is on the surface of the watershed or in the channel.

FIS Reports include analyses of how these factors will combine to produce overland flow patterns during floods that have a certain probability of occurring in any given year. Although the recurrence interval represents the long-term average period between floods of a specific magnitude, rare floods could occur at shorter intervals or even within the same year. The risk of experiencing a rare flood increases when longer periods are considered. For example, the risk of having a flood which equals or exceeds the 1% annual chance flood (1% chance of annual exceedence) in any 50-year period is approximately 40% (4 in 10), but for any 90-year period, the risk increases to approximately 60% (6 in 10).

It is important to note that the 1% annual chance flood is used as the national standard to allow a consistent approach to floodplain management, flood hazard assessment, and flood hazard mapping. In any given community, a number of factors may result in flooding characteristics that do not conform to predicted conditions. Therefore, the determination that an area is not shown on the FIRM as being within a Special Flood Hazard Area is no guarantee that it will not flood during a 1% annual chance flood. Examples of these factors include Data Validity and Reliability; Developmental and Topographic Changes Over Time; Erosion, Deposition, and Debris Flow; and Meandering and Lateral Migration.

### Data Validity and Reliability

Certain types of analysis methods yield more justifiable characterizations of flood hazards. For example, a gage analysis, to determine peak discharges, is based on actual measurements of watershed conditions over time and, therefore, is typically considered the most accurate method of hydrologic analysis. However, it is not feasible to install enough gages to gather data on every stream. In addition, for many of the gage sites that do exist, there are interruptions in the period

of record. The usefulness of gage data for the purpose of predicting flooding behavior decreases with interruptions in the period of record; predicted flooding conditions over a 100-year period based on 20 years of measurements spread over a 35-year period are less valid than those based on 30 years of continuous measurements. A regression analysis is typically considered the best method in the absence of gage data, as it uses gage data from watersheds with similar characteristics to estimate flood frequency and magnitude in an ungaged watershed. Regression equations reflect average conditions for a region; therefore, the results will not exactly match the results of a gage analysis at a particular location. The standard errors of the North Carolina rural regression equations range from 44 to 51 percent for estimates of the 1% annual chance flood. That means the difference between the results of the regression equation and the gage analysis for approximately two-thirds of the locations that gage data exists are within 44 to 51 percent of the gage analysis results. A rainfall-runoff hydrologic analysis may be used for gaged or ungaged watersheds, and can estimate the effects of storage areas and flood control structures and measures. This method is most valid when calibrated against historical data.

### Developmental and Topographic Changes Over Time

A FIRM is based on the best topographic and planimetric information available to FEMA and the State of North Carolina at the time the study is produced. In time, however, development and/or natural phenomena can alter the physical characteristics of a watershed and its drainage channels, resulting in changes in the flood hazards in those areas. For example, constructing a housing subdivision reduces the amount of soil that is available to absorb water; this in turn causes an increase in the volume of surface water that flows into the channel.

### Erosion, Deposition, and Debris Flow

The flood hazards shown on a FIRM are based on the assumption of unobstructed flow. The FIRM does not reflect an analysis of areas that are subject to erosion caused by the increased water-surface elevations and velocities that occur during flooding. In addition to the risks of landslides or a weakening of the ground underneath roads or structures, any sediment that is removed from one location will be deposited in another; accumulated deposits may have a pronounced effect on flood hazards in those areas. Similarly, debris such as fallen trees or branches, litter, or other items may obstruct stream channels or hydraulic structures, increasing water-surface elevations, velocities, and floodplain width.

### Meandering and Lateral Migration

FISs are based on the assumption that channel geometry will remain stable during normal drainage and during flood events. This assumption is valid for most streams, which flow over bedrock or between bedrock outcroppings that form non-alluvial channels. However, alluvial streams change the channel geometry with time, significantly so during flood events. Alluvial streams are subject to erosion and deposition, which may result in braided or meandering channels. Streams of this type may be characterized by lateral migration, or channel shifting, in which the stream may change course entirely during a flood. Whenever clear evidence is available, a FIRM will identify the alluvial nature of a studied flooding source and designate wider floodways to allow for potential migration. However, these floodways are based on qualitative assessments and not on quantitative geomorphic and engineering analyses.

## Section 3.0 – Insurance Applications

For flood insurance applications, the FIRM designates flood insurance rate zones and, in 1% annual chance floodplains that were studied by detailed methods, shows selected whole-foot BFEs or average depths. Insurance agents use the zones and BFEs in conjunction with information on structures and their contents to assign premium rates for flood insurance policies. Table 2, "Flood Zone Designations," includes a description of each type of flood hazard zone.

**Table 2—Flood Zone Designations**

| Zone | Description |
|---|---|
| A | Zone A is the flood insurance rate zone that corresponds to the 1% annual chance floodplains that are determined in the FIS Report by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no Base Flood Elevations or depths are shown within this zone. |
| AE | Zone AE is the flood insurance rate zone that corresponds to the 1% annual chance floodplains that are determined in the FIS Report by detailed methods. In most instances, whole-foot Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone. |
| AH | Zone AH is the flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone. |
| AO | Zone AO is the flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average whole-foot depths derived from the detailed hydraulic analyses are shown within this zone. |
| AR | Zone AR is the flood insurance rate zone that corresponds to areas that were formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood. |
| A99 | Zone A99 is the flood insurance rate zone that corresponds to areas of the 1% annual chance floodplain that will be protected by a Federal flood protection system where construction has reached specified statutory milestones. No Base Flood Elevations or depths are shown within this zone. |
| V | Zone V is the flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Because approximate hydraulic analyses are performed for such areas, no Base Flood Elevations are shown within this zone. |
| VE | Zone VE is the flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Whole-foot Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone. |

## Table 2—Flood Zone Designations

| Zone | Description |
|---|---|
| X | Zone X is the flood insurance rate zone that corresponds to areas outside the 0.2% annual chance floodplain, areas within the 0.2% annual chance floodplain, and to areas of 1% annual chance flooding where average depths are less than 1 foot, areas of 1% annual chance flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 1% annual chance flood by levees. No Base Flood Elevations or depths are shown within this zone. |
| X (Future) | Zone X (Future Base Flood) is the flood insurance risk zone that corresponds to the 1-percent-annual-chance floodplains that are determined based on future-conditions hydrology. No BFEs or base flood depths are shown within this zone. |
| D | Zone D is the flood insurance rate zone that corresponds to unstudied areas where flood hazards are undetermined, but possible. |

## 4.1 Basin Characteristics

### Yadkin River Basin

The Yadkin River Basin drains from the Virginia border to South Carolina, cutting a swath through west central North Carolina. With 7,400 square miles, or 15.6% of the land area, this is the second largest drainage basin in the state. It also has the second largest number of stream miles - 5,855. The basin originates on the eastern slopes of the Blue Ridge Mountains in Caldwell, Wilkes, and Surry Counties. A small portion of the Yadkin River headwaters originates in Virginia and flows northeasterly for about 100 miles, then flows to the southeast until it joins the Uwharrie River to form the Pee Dee River. The Pee Dee River continues flowing southeasterly through South Carolina to the Atlantic Ocean. The North Carolina portion of the basin contains approximately 5,991 miles of freshwater streams and rivers.

Forest land covers approximately 50% of the basin and 95% of that forestry is privately owned. Agriculture (including cultivated and uncultivated cropland (15.6%) and pastureland (14.1%)) covers approximately 30% of the land area, while 13% of the land is developed. The urban and built-up category comprises roughly 11% and exhibited the most dramatic change between 1982 and 1992 (38% increase). Other categories that showed substantial changes during this period were pasturelands (19% increase) and the "Other" category, which includes rural transportation (26% increase).

Both cultivated and uncultivated cropland decreased by a total of 46% in the basin between 1982 and 1992. It is likely that some of this cropland was converted to pastureland and to urban and built-up areas. Major land use activities in the basin include agriculture (crops, swine, poultry and cattle operations) and construction activities related to growth. Iredell County has the largest dairy cattle population in the state. The map below shows a general area of the Yadkin River Basin, also known as the Yadkin-Pee Dee River Basin.

There are 28 counties and over 93 municipalities in this large drainage area. The basin includes all or portions of the following counties: Alexander, Allegheny, Anson, Ashe, Cabarrus, Caldwell, Davidson, Davie, Forsyth, Guilford, Iredell, Mecklenburg, Montgomery, Randolph, Richmond, Rowan, Scotland, Stanly, Stokes, Surry, Union, Watauga, Wilkes, and Yadkin. This is the second most densely populated watershed, with 1,193,353 people or 17.51 % of the state's total population. Based on 1990 census data, the population of the basin was 1.2 million people.

The most populated areas are in and near Winston-Salem and Charlotte. The overall population density is 163 persons per square mile versus a statewide average of 123 persons per square mile. While much of the basin contains rural areas surrounding small towns, many of the small to large cities have high density areas. The percent population growth over the ten year period between 1980 and 1990 was 10 percent.

This region is characterized by rolling hills and geologic formations consisting of crystalline or sedimentary rocks. Because of the moderate topography, more streams drain a smaller amount of land, creating moderate drainage density.

The Yadkin Basin serves as a corridor for plants and animals migrating from the mountains to the Coastal Plain, and vice-versa. This basin contains a variety of habitat types, as well as many rare plants and animals. Sportfishes in the Yadkin River upstream of the Kerr Scott Reservoir include smallmouth bass, redbreast sunfish and bullhead catfishes. A considerable amount of white and striped bass fish exist below Idols Dam (west of Clemmons – in Forsyth County) in the spring when the fish migrate from downstream reservoirs to spawn. In addition to being important

natural resources, these reservoir fisheries also help make the basin a popular place for recreation, significantly boosting the local economy.

## 4.2 Principal Flood Problems

Low-lying areas and road crossings in the Town of China Grove, the Town of East Spencer, the Town of Faith, the Town of Granite Quarry, the Town of Landis, the Town of Rockwell, and the Town of Spencer are subject to flooding by overflows of study streams. The most severe flooding on these streams is usually the result of heavy rains from local thunderstorms or from continuous rainfall which saturate the ground over an extended period. A search for information on past flooding, including information on the past maximum flood, failed to produce any useful results; however, a rainfall of 7.2 inches in a 24-hour period is expected to produce a 1% annual chance flood in the China Grove, Faith, Granite Quarry, Landis, and Rockwell areas (U.S. Department of Commerce, 1961).

Major flooding in the Rowan County and City of Salisbury areas is most likely to occur from June through September as a result of hurricanes and tropical storms. Local thunderstorms have also produced floods at other times of the year. For the Unincorporated Areas of Rowan County, a search for information on past flooding indicated that one of the highest floods in the area occurred in March 1952; however, not enough information was available to establish if this was the maximum flood in experienced in Rowan County. From information available, it appears that other major flooding occurred in 1924, 1928, May 1942, October 1954, June 1962, August 1964, and February 1973 (U.S. Army Corps of Engineer District, 1973).

## 4.3 Historic Flood Elevations

On July 3, 1997, a cluster of thunderstorms producing very heavy rain sank south in the Charlotte metro area shortly before midnight of the 23rd and continued to redevelop over the area through mid-morning. Severe flash flooding resulted as nearly 10 inches of rain fell in some spots. In Cabarrus County, 3 of the 4 injuries occurred when a plant roof collapsed due to the weight of the rain water. The fourth injury occurred in Mount Pleasant when a person drove into a wash-out.

On March 20, 2003, after morning flash flooding, moderating rainfall resulted in slower rises, but continued and additional flooding along creeks and streams into the evening hours. At least 6 roads were flooded by adjacent streams, and a herd of cows required rescue due to high water. The damage was estimated at $100,000.

Flooding developed during the afternoon of April 10, 2003 along many creeks and streams across the county, including along Grants Creek. Some mobile homes and other structures were flooded, and a nursing home and a mobile home park required evacuation near Kannapolis. A motorist required rescue from his vehicle near Gold Hill. This flood caused an estimated $200,000.

On July 29, 2003, an overflowing creek flooded a home, and its resident required rescuing. Fourth Creek flooded a bridge on Mt Vernon Road. Several other roads were flooded, and at least 2 were closed for several hours. Later, on August 10, 2003, numerous creeks overflowed their banks and flooded adjacent roads, including Fourth Creek near Needmore. In Granite Quarry, 3 to 4 feet of water entered some homes. The damage was estimated at $50,000.

On August 16-17, 2003, several small streams and creeks overflowed their banks in the Granite Quarry and Rockwell areas, resulting in flooding of vehicles, homes, roads, and apartment

buildings. Several homes in the Granite Quarry area flooded for the second time in a week. Several cars at an apartment complex were damaged severely by flood waters. Damage was estimated at $100,000.

On September 22, 2003, heavy rainfall resulted in flash flooding along Grant's Creek between Salisbury and Spencer. A creek near China Grove overflowed its banks and flooded a portion of highway 152. Town Creek flooded in Salisbury, causing some damage at a construction site, and resulting in several road closures. Damage reports were at $5,000.

On July 4, 2005, the City of Salisbury saw severe urban flooding, with at least 3 people trapped in flooded vehicles on Main and Innes Streets. Several small creeks flooded around town (including tributaries of Grants Creek and the creek itself in Spencer), with water entering the basement of at least one home. Severely flooded roads included 18th Street, Mahaley Avenue, and roads around Knox Middle School and Overton School. Damage estimates were at $20,000.

September 13, 1984 (Hurricane Diana)
The landfall location of Diana was 38 miles south of Wilmington with 90 mph winds at its closest approach to Wilmington. Diana had 115 mph sustained winds before landfall. Storm surge was approximately 5-6 feet.

September 26, 1985 (Hurricane Gloria)
The landfall location of Gloria was Cape Hatteras, with 90 knot winds and a storm surge of approximately 6-8 feet.

July 12, 1996 (Hurricane Bertha)
1996 was a damaging year in the hurricane history of North Carolina. Tropical Storm Arthur, Hurricane Bertha, and Hurricane Fran all made direct landfall on the North Carolina coastline. It was the most active tropical cyclone season in the state since 1955, when Hurricanes Connie, Diane, and Ione all hit the coast. Bertha entered North Carolina in North Topsail Beach with 105 mph gust and a storm surge of approximately 5 feet.

September 5, 1996 (Hurricane Fran)
The landfall location of Fran near the city of Wilmington and its progression into the Raleigh-Durham area caused an estimated $1.275 billion in damage in North Carolina alone. Fran hit with gusts up to 105 mph and a storm surge of approximately 16 feet. Over $1 billion in damage was reported in North Topsail Beach and Surf City and 23 people were killed.

August 26, 1998 (Hurricane Bonnie)
The landfall location of Bonnie was in southern North Carolina near Cape Fear very close to landfall of both Hurricanes Bertha and Fran in 1996. Even though a powerful storm, damage from Bonnie was much less than Fran, which was also Category 3. Winds gusted up to 100 knots and storm tides of 5 to 8 feet above normal were reported mainly in eastern beaches of Brunswick County, while a storm surge of 6 feet was reported at Pasquotank and Camden Counties in the Albemarle Sound.

September 16, 1999 (Hurricane Floyd)
Hurricane Floyd made landfall near Wilmington with category two winds of 105 to 110 mph. Rainfall totals from Floyd were as high as 15 to 20 inches over portions of eastern North Carolina; with a record of 23.45 inches of rain falling in the month of September at Wilmington, NC. This breaks the previous record of 21.12 inches set in July 1886. These rains combined with

saturated ground from previous rain events, including Hurricane Dennis, to produce an inland flood disaster. There were 74 deaths in the United States, including 52 in North Carolina, due to drowning from flood waters.

Data from the USGS indicate that eleven of their stream gage monitoring sites in North Carolina (Ahoskie, Rocky Mount, Hilliardston, White Oak, Enfield, Tarboro, Lucama, Hookerton, Trenton, Chinquapin, and Freeland) exceeded 0.2% annual chance flood levels due to Floyd. Total losses in North Carolina approach $5 billion with an estimated $3.5 billion in damages to North Carolina homes, businesses, roads, and infrastructure.

Floyd passed relatively close to the entire U.S. east coast, justifying hurricane warnings from Florida to Massachusetts and requiring an estimated two million people to evacuate. The last hurricane to require warnings for as large a stretch of coastline was Hurricane Donna in 1960.

## 4.4 Flood Protection Measures

Flood protection measures may be structural (such as levees, dams, and reservoirs) or non-structural (such as land-use management ordinances, policies, or practices).

To provide safe flood protection and be mapped as such, FEMA specifies that all levees must: have a minimum of three feet of freeboard against the 1% annual chance flood event; be equipped with closure devices at every opening; be constructed with embankments and foundations that are certified not to fail due to erosion, seepage, or instability; and be certified against future loss of freeboard due to settling. For additional requirements, please refer to 44 CFR 65.10.

Flood protection measures are not known to exist in the Town of China Grove, the Town of East Spencer, the Town of Faith, Town of Granite Quarry, Town of Landis, the Town of Rockwell, the Unincorporated Areas of Rowan County, the City of Salisbury, and the Town of Spencer.

## 4.5 Scope of Study

In order to determine the areas studied by detailed and limited detailed methods in this FIS, initial research and community coordination was necessary. Initial scoping meetings were held in Rowan County to present the results of initial research to the county and communities within the county and to discuss their flood mapping needs. The county and communities were asked to provide input on proposed study priorities and analysis methods. Those meetings resulted in the identification of flooding sources having a flood mapping need. Draft basin plans were developed based on the results of the initial scoping meetings. Final scoping meetings were held by the State and FEMA to provide counties and communities an overview of the draft basin plans, including the proposed scope and schedule for the project, and to provide an opportunity for additional county and community input. After the final scoping meeting was held, the Final Basin Plans were produced.

This FIS covers the geographic area of Rowan County, North Carolina, and all jurisdictions therein. The areas studied by detailed methods were selected with priority given to all known flood hazard areas and areas of projected development and proposed construction. Limits of detailed study are indicated on the Flood Profiles and/or the FIRM. Please see Table 3, "Flooding Sources Studied by Detailed Methods: Revised or Newly Studied," for a list of flooding sources that were revised or newly studied by detailed methods for this FIS.

## Table 3—Flooding Sources Studied by Detailed Methods: Revised or Newly Studied

| Source | Riverine Sources | | Affected Communities |
|---|---|---|---|
| | From | To | |
| Back Creek | Approximately 4.1 miles upstream of the confluence of Sloans Creek | Approximately 6.1 miles upstream of the confluence of Sloans Creek | Rowan County (Unincorporated Areas) |
| Bostian Heights Branch | Approximately 185 feet upstream of Scercy Road (SR 1346) | Approximately 222 feet upstream of Daugherty Road (SR 1243) | Rowan County (Unincorporated Areas) |
| Church Creek | The confluence with Crane Creek/High Rock Lake | Approximately 1.0 mile upstream of U.S. Highway 52 | Town of Granite Quarry, Rowan County (Unincorporated Areas) |
| Coddle Creek | The Rowan/Iredell/Cabarrus County boundary | The Rowan/Iredell County boundary | Rowan County (Unincorporated Areas) |
| Concord Road Creek* | The confluence with Town Creek | Approximately 1,100 feet upstream of the confluence with Town Creek | City of Salisbury |
| Crane Creek | Approximately 0.5 mile downstream of the confluence of Town Creek | Approximately 100 feet downstream of North Main Street | Town of Granite Quarry, Town of East Spencer, City of Salisbury, and Rowan County (Unincorporated Areas) |
| Draft Branch* | At the confluence with Grants Creek | Approximately 0.9 mile upstream of the confluence with Grants Creek | City of Salisbury |
| Fourth Creek | The Iredell/Rowan County boundary | Approximately 595 feet upstream of the Iredell/Rowan County boundary | Rowan County (Unincorporated Areas) |
| Grants Creek | The confluence with Yadkin River | Approximately 481 feet downstream of West Ryder Ave | City of Salisbury, Towns of China Grove and Landis, Rowan County (Unincorporated Areas) |
| Henderson Branch* | At the confluence with Grants Creek | Approximately 1,760 feet upstream of the confluence with Grants Creek | City of Salisbury |
| Irish Buffalo Creek | Approximately 88 feet upstream of Cannon Farm Road | Approximately 1.3 miles upstream of Echo Hollow Drive | Rowan County (Unincorporated Areas) |
| Klutz Branch | The confluence with Legion Park Branch | Approximately 0.2 mile upstream of the confluence with Legion Park Branch | Town of Granite Quarry |
| Lake Wright Branch* | At the confluence with Grants Creek | Approximately 1,500 feet upstream of the confluence with Grants Creek | Rowan County (Unincorporated Areas); Town of China Grove |

## Table 3—Flooding Sources Studied by Detailed Methods: Revised or Newly Studied

| Source | Riverine Sources | | Affected Communities |
|---|---|---|---|
| | From | To | |
| Legion Park Branch | The confluence with Trexler Creek | Approximately 0.4 mile upstream of the confluence of Klutz Branch | Town of Granite Quarry, Rowan County (Unincorporated Areas) |
| Little Creek* | At the confluence with Grants Creek | Approximately 0.5 mile upstream of the confluence with Grants Creek | Rowan County (Unincorporated Areas) |
| Lomax Creek* | At the confluence with Grants Creek | Approximately 800 feet upstream of the confluence with Grants Creek | Town of Spencer, Rowan County (Unincorporated Areas) |
| Mahaley Branch* | At the confluence with Grants Creek | East Park Road | City of Salisbury |
| Petrea Branch | The confluence with Grants Creek | Approximately 1.0 mile upstream of the confluence with Grants Creek | Town of China Grove |
| Rocky Branch* | The confluence with Grants Creek | Approximately 1,400 feet upstream of confluence with Grants Creek | Town of Spencer |
| Rowan Avenue Park Stream* | The confluence with Grants Creek | Approximately 500 feet upstream of Charles Street | Town of Spencer, Rowan County (Unincorporated Areas) |
| Sixth Street Branch* | The confluence with Grants Creek | Approximately 1,090 feet upstream of the confluence with Grants Creek | Town of Spencer, Rowan County (Unincorporated Areas) |
| Swearington Branch* | At the confluence with Grants Creek | Approximately 700 feet upstream of the confluence with Grants Creek | Town of China Grove |
| Tar Branch* | The confluence with Crane Creek | Approximately 1,440 feet upstream of the confluence with Crane Creek | City of Salisbury |
| Third Street Creek* | The confluence with Grants Creek | Approximately 1,380 feet upstream of the confluence with Grants Creek | Town of Spencer, Rowan County (Unincorporated Areas) |
| Town Creek* (downstream) | The confluence with Crane Creek | Approximately 1,500 feet upstream of the confluence with Crane Creek | Rowan County (Unincorporated Areas) |
| Town Creek (upstream) | Approximately 190 feet downstream of Bringle Ferry Road | Approximately 140 feet upstream of Julian Road | City of Salisbury, Rowan County (Unincorporated Areas) |
| Town Creek Tributary 1 | The confluence with Town Creek | Approximately 110 feet upstream of Tanglewood Drive | Town of East Spencer, Rowan County (Unincorporated Areas) |

## Table 3—Flooding Sources Studied by Detailed Methods: Revised or Newly Studied

| Source | Riverine Sources | | Affected Communities |
|---|---|---|---|
| | From | To | |
| Trexler Creek | The confluence with Crane creek | Approximately 0.2 mile upstream of U.S. Highway 52 (North Salisbury Avenue) | Town of Granite Quarry |
| Woodleaf Branch (East) ** | The confluence with Grants Creek | Approximately 1,700 feet downstream of Lincolnton Road | City of Salisbury |

* Revised to reflect backwater effects from new detailed study.
** Revised to reflect flooding controlled by Grants Creek and backwater effects from new detailed study.

Table 4, "Flooding Sources Studied by Detailed Methods: Redelineated," contains a list of flooding sources that were studied by detailed methods for previous FISs, but were only partially revised in the current study. Their effective analyses remain valid; however, their floodplain delineations have been revised on the current FIRM.

## Table 4—Flooding Sources Studied by Detailed Methods: Redelineated

| Source | Riverine Sources | | Affected Communities |
|---|---|---|---|
| | From | To | |
| Beaver Creek | The confluence with Cold Water Creek | Approximately 1,750 feet upstream of Milton Street | Rowan County (Unincorporated Areas), Town of Landis |
| Bostian Heights Branch | The confluence with Dutch Buffalo Creek | Approximately 185 feet upstream of Scercy Road (SR 1346) | Rowan County (Unincorporated Areas) |
| Cold Water Creek | Approximately 0.5 mile upstream of Moose Road (SR 1308) | Approximately 0.5 mile upstream of Lentz Road | Rowan County (Unincorporated Areas) |
| Crane Creek | Approximately 100 feet downstream of North Main Street | Old Concord Road (SR 1002) | Rowan County (Unincorporated Areas), Town of Granite Quarry |
| Draft Branch | Approximately 0.9 mile upstream of the confluence with Grants Creek | Neel Road (SR 1729) | Rowan County (Unincorporated Areas), City of Salisbury |
| Dutch Buffalo Creek | The Rowan/Cabarrus County boundary | Approximately 130 feet upstream of Rogers Road (SR 2573) | Rowan County (Unincorporated Areas) |
| Julian Tributary | The confluence with Town Creek | Approximately 60 feet upstream of Julian Road | City of Salisbury |
| Lake Wright Branch* | Approximately 1,500 feet upstream of the confluence with Grants Creek | Approximately 0.6 mile upstream of Brown Road (SR 1211) | Rowan County (Unincorporated Areas), Town of China Grove |

## Table 4—Flooding Sources Studied by Detailed Methods: Redelineated

| Source | Riverine Sources | | Affected Communities |
|---|---|---|---|
| | From | To | |
| Little Creek* | Approximately 0.5 mile upstream of the confluence with Grants Creek | Weaver Road (SR 1535) | Rowan County (Unincorporated Areas) |
| Town Creek (downstream) | Approximately 1,500 feet upstream of the confluence with Crane Creek | Approximately 190 feet downstream of Bringle Ferry Road | Rowan County (Unincorporated Areas), City of Salisbury, Town of East Spencer |
| Town Creek (upstream) | Approximately 140 feet upstream of Julian Road | Approximately 0.4 mile downstream Interstate 85 | Rowan County (Unincorporated Areas), City of Salisbury |
| Wildlife Tributary | The confluence with Draft Branch | Approximately 0.6 mile upstream of Harrison Road | Rowan County (Unincorporated Areas), City of Salisbury |

* Backwater from Grants Creek has been revised

Table 5, "Flooding Sources Studied by Detailed Methods: Modified Detailed," contains a list of flooding sources that were studied by detailed methods for previous FISs, but were only partially revised in the current study. Their effective analyses remain valid; however, their floodplain delineations have been revised on the current FIRM.

## Table 5—Flooding Sources Studied by Detailed Methods: Modified Detailed

| Source | Riverine Sources | | Affected Communities |
|---|---|---|---|
| | From | To | |
| Baker Branch | Approximately 560 feet upstream of 22nd Street | Approximately 0.4 mile upstream of West 22nd Street | Town of Landis, Rowan County (Unincorporated Areas) |
| Beaver Creek | Approximately 1,750 feet upstream of Milton Street | Approximately 1,260 feet upstream of South Chapel Street (SR 1464) | Town of Landis, Rowan County (Unincorporated Areas) |
| Beaver Creek Tributary | The confluence with Beaver Creek | Approximately 1,300 feet upstream of the confluence with Beaver Creek | Rowan County (Unincorporated Areas) |
| Bost Branch | Approximately 0.3 mile upstream of the confluence with Second Creek | Approximately 200 feet upstream of NC Highway 52 (China Grove Highway) | Town of Rockwell |

## Table 5—Flooding Sources Studied by Detailed Methods: Modified Detailed

| Source | Riverine Sources | | Affected Communities |
|---|---|---|---|
| | From | To | |
| Byrd Road Tributary | The confluence with Crane Creek | Approximately 150 feet upstream of Legion Club Road | Town of Granite Quarry |
| Cemetery Creek | The confluence of Quarry Creek | Approximately 50 feet downstream of Lakeview Street | Town of Faith |
| Cold Water Creek Tributary | The confluence with Cold Water Creek | Approximately 250 feet downstream of U.S. Highway 29 | Town of China Grove, Rowan County (Unincorporated Areas) |
| Concord Road Creek | Approximately 1,100 feet upstream of the confluence with Town Creek | Approximately 1,200 feet upstream of Interstate 85 | City of Salisbury |
| Correll Creek | The confluence with Beaver Creek | Approximately 108 feet upstream of East Mills Drive | Town of Landis |
| Crane Creek | Approximately 50 feet downstream of Old Concord Road (SR 1002) | Approximately 50 feet upstream of Mt Hope Church Road (SR 1505) | Rowan County (Unincorporated Areas) |
| Draft Branch | Neel Road (SR 1729) | Approximately 0.6 mile upstream of Cauble Farm Road | Rowan County (Unincorporated Areas) |
| Draft Branch Tributary | The confluence with Draft Branch | Approximately 0.2 mile upstream of Neel Road (SR 1729) | Rowan County (Unincorporated Areas) |
| Dutch Buffalo Creek Tributary | The confluence with Dutch Buffalo Creek | Approximately 180 feet upstream of Roy Cline Road | Rowan County (Unincorporated Areas) |
| East Centerview Branch | The confluence with Cold Water Creek | South Bostian Street | Rowan County (Unincorporated Areas), Town of China Grove |
| East Spencer High Creek | The confluence with Ice Plant Creek | Approximately 134 feet upstream of Grant Street | Town of East Spencer |
| Faith Road Branch | The confluence with Crane Creek | Approximately 150 feet upstream of Ted Lane (SR 2534) | Rowan County (Unincorporated Areas) |
| Five Forks Tributary | The confluence with Lake Wright Branch | Approximately 0.9 mile upstream of Stirewalt Road (SR 1541) | Town of China Grove, Rowan County (Unincorporated Areas) |
| Gravel Pit Branch | The confluence with Julian Tributary | Approximately 0.9 mile upstream of Interstate 85 | City of Salisbury |
| Henderson Branch | Approximately 1,760 feet upstream of the confluence with Grants Creek | Approximately 150 feet upstream of North Church Street | City of Salisbury |
| Henderson Branch Tributary | The confluence with Henderson Branch | Approximately 500 feet upstream of West Lafayette Street | City of Salisbury |
| Hopkins Street Branch | The confluence with Town Creek | Approximately 600 feet upstream of South Boundary Street | City of Salisbury |

## Table 5—Flooding Sources Studied by Detailed Methods: Modified Detailed

| Source | Riverine Sources | | Affected Communities |
|---|---|---|---|
| | From | To | |
| Ice Plant Creek | The confluence with Town Creek | Approximately 0.3 mile upstream of Grant Street | Town of East Spencer, Rowan County (Unincorporated Areas) |
| Innis Street Creek | The confluence with Town Creek | Approximately 250 feet upstream of North Shaver Street | City of Salisbury |
| Jackson Branch | The confluence with Railroad Branch | Approximately 136 feet upstream of Shaver Street | Town of East Spencer |
| Julian Tributary | Approximately 60 feet upstream of Julian Road | Approximately 0.4 mile upstream of Interstate 85 | City of Salisbury, Rowan County (Unincorporated Areas) |
| Lake Wright Branch | Approximately 0.6 mile upstream of Brown Road (SR 1211) | Approximately 1.5 miles upstream of Lake Wright Road | Rowan County (Unincorporated Areas) |
| Little Creek | Weaver Road (SR 1535) | Approximately 1.7 miles upstream of Weaver Road (SR 1535) | Rowan County (Unincorporated Areas) |
| Lomax Creek | Approximately 800 feet upstream of the confluence with Grants Creek | Approximately 0.3 mile upstream of confluence with Grants Creek | Town of Spencer |
| Mahaley Branch | East Park Road | Approximately 350 feet upstream of South Craige Street | City of Salisbury |
| Mahaley Branch Tributary | The confluence with Mahaley Branch | Approximately 338 feet upstream of South West Street | City of Salisbury |
| Main Street Tributary | The confluence with Thomas Street Creek | Approximately 750 feet upstream of Military Avenue | City of Salisbury |
| Maple Avenue Branch | The confluence with Woodleaf Branch (East) | Approximately 900 feet upstream of Wilson Road | City of Salisbury |
| Mill Creek (into Grants Creek) | The confluence with Grants Creek | Approximately 264 feet upstream of West Ryder Avenue | Town of Landis |
| Moose Branch | Approximately 1,500 feet upstream of the confluence with Beaver Creek Tributary | Approximately 1600 feet upstream of the confluence with Beaver Creek Tributary | Rowan County (Unincorporated Areas) |
| North Fork Tributary | The confluence with Lake Wright Branch | Approximately 200 feet downstream of Fellowship Park Road | Rowan County (Unincorporated Areas) |
| Park Avenue Branch | The confluence with Town Creek | Approximately 80 feet downstream of North Boundary Street | City of Salisbury |
| Park Creek (into Quarry Creek) | The confluence with Quarry Creek | Approximately 600 feet upstream of School Street | Town of Faith |

## Table 5—Flooding Sources Studied by Detailed Methods: Modified Detailed

| Source | Riverine Sources | | Affected Communities |
|---|---|---|---|
| | From | To | |
| Peeler Branch | Approximately 500 feet upstream of Sides Road | Approximately 1400 feet upstream of Market Street | Rowan County (Unincorporated Areas), Town of Rockwell |
| Pine Ridge Branch | The confluence with Cold Water Creek | Approximately 120 feet upstream of Lentz Road | Town of China Grove, Rowan County (Unincorporated Areas) |
| Quarry Creek | The confluence with Crane Creek | Approximately 1,900 feet upstream of North Main Street | Town of Faith |
| Railroad Branch | The confluence with Town Creek | Approximately 157 feet upstream of Shaver Street | Town of East Spencer, Rowan County (Unincorporated Areas) |
| Rocky Branch | Approximately 1,400 feet upstream of confluence with Grants Creek | Approximately 118 feet upstream of South Yadkin Avenue | Town of Spencer |
| Rowan Avenue Park Stream | Approximately 500 feet upstream of Charles Street | Approximately 656 feet upstream of South Salisbury Avenue | Town of Spencer |
| Sides Branch | The confluence with Peeler Branch | Approximately 1,500 feet upstream of confluence with Peeler Branch | Town of Rockwell, Rowan County (Unincorporated Areas) |
| Sixth Street Branch | Approximately 1,090 feet upstream of the confluence with Grants Creek | Approximately 100 feet upstream of South Spencer Avenue | Town of Spencer |
| Southern Railroad Branch | The confluence with Rowan Avenue Park Stream | Approximately 624 feet upstream of North Salisbury Avenue | Town of Spencer |
| Southside Tributary | The confluence with Faith Road Branch | Approximately 1,500 feet of Webb Road | Rowan County (Unincorporated Areas) |
| Spring Hill Branch | The confluence with Rocky Branch Tributary 1 | Approximately 1,030 feet upstream of South Rowan Avenue | Town of Spencer |
| Swearington Branch | Approximately 700 feet upstream of the confluence with Grants Creek | Approximately 117 feet upstream of Clinton Street | Town of China Grove |
| Tar Branch | Approximately 1,440 feet upstream of the confluence with Crane Creek | Approximately 600 feet upstream of Jake Alexander Boulevard | City of Salisbury |
| Tar Branch Tributary | The confluence of Tar Branch | Approximately 550 feet downstream of Carolina Boulevard | City of Salisbury |
| Third Street Creek | Approximately 1,380 feet upstream of the confluence with Grants Creek | Approximately 150 feet upstream of Jordan Avenue | Town of Spencer |
| Thomas Street Creek | The confluence with Town Creek | Approximately 300 feet upstream of South Railroad Street | City of Salisbury |

## Table 5—Flooding Sources Studied by Detailed Methods: Modified Detailed

| Source | Riverine Sources | | Affected Communities |
|---|---|---|---|
| | From | To | |
| Town Branch | The confluence with Cold Water Creek | Approximately 0.6 mile upstream of U.S. Highway 29 | Town of Landis, Rowan County (Unincorporated Areas) |
| Town Creek | Approximately 0.4 mile downstream of Interstate 85 | Approximately 800 feet upstream of Interstate 85 | Rowan County (Unincorporated Areas) |
| Town Creek Tributary | The confluence with Town Creek | Approximately 0.85 mile upstream of Ed Weaver Road | Rowan County (Unincorporated Areas) |
| Vance Avenue Branch | The confluence with Town Creek | Approximately 10 feet upstream of South Railroad Street | City of Salisbury |
| Walnut Street Branch | The confluence of Cold Water Creek | Approximately 1200 feet upstream of Pine Ridge Road | Town of China Grove |
| Walton Branch | The confluence with Rowan Avenue Park Branch | Approximately 550 feet upstream of N Yadkin Avenue | Town of Spencer |
| Wildlife Tributary | Approximately 0.6 mile upstream of Harrison Road | Approximately 0.6 mile upstream of Majolica Road | City of Salisbury, Rowan County (Unincorporated Areas) |
| Wiley Avenue Branch | The confluence with Maple Avenue Branch | Approximately 300 feet upstream of Crosby Street | City of Salisbury |
| Woodleaf Branch (East) | Approximately 1,700 feet downstream of Lincolnton Road | Lincolnton Road | City of Salisbury |
| Wright Branch | The confluence with Lake Wright Branch | Approximately 0.8 mile upstream of confluence with Lake Wright Branch | Rowan County (Unincorporated Areas) |

Table 6, "Flooding Sources Studied by Detailed Methods: Limited Detailed" contains a list of flooding sources that were studied by approximate methods in previous FISs but were revised using limited detailed methods for this FIS.

## Table 6—Flooding Sources Studied by Detailed Methods: Limited Detailed

| Source | Riverine Sources | | Affected Communities |
|---|---|---|---|
| | From | To | |
| Back Creek (downstream) | The confluence with North Second Creek | Approximately 4.1 miles upstream of the confluence of Sloans Creek | Rowan County (Unincorporated Areas) |
| Back Creek (upstream) | Approximately 6.1 miles upstream of the confluence of Sloans Creek | The Iredell/Rowan County boundary | Rowan County (Unincorporated Areas) |

## Table 6—Flooding Sources Studied by Detailed Methods: Limited Detailed

| Source | Riverine Sources | | Affected Communities |
|---|---|---|---|
| | From | To | |
| Back Creek Tributary 1 | The confluence with Back Creek | The Iredell/Rowan County boundary | Rowan County (Unincorporated Areas) |
| Beaverdam Creek (East) | The confluence with North Second Creek | Approximately 0.4 mile upstream of NC Highway 801 | Rowan County (Unincorporated Areas) |
| Beaverdam Creek (West) | The confluence with Withrow Creek | The Iredell/Rowan County boundary | Rowan County (Unincorporated Areas) |
| Bell Branch | The confluence with South Yadkin River | Approximately 1,500 feet upstream of the confluence with South Yadkin River | Rowan County (Unincorporated Areas) |
| Bost Branch | The confluence with Second Creek | Approximately 0.3 mile upstream of the confluence with Second Creek | Town of Rockwell |
| Cedar Creek | The confluence with Yadkin River | Approximately 0.4 mile upstream of River Road (SR 2152) | Rowan County (Unincorporated Areas) |
| Church Creek Tributary 1 | The confluence with Church Creek | Approximately 417 feet downstream of U.S. Highway 52 | Town of Granite Quarry, Rowan County (Unincorporated Areas) |
| Church Creek Tributary 1A | The confluence with Church Creek Tributary 1 | Approximately 0.5 mile upstream Fish Pond Road (SR 2309) | Rowan County (Unincorporated Areas) |
| Church Creek Tributary 2 | The confluence with Church Creek | Approximately 0.8 mile upstream of Stone Road | Rowan County (Unincorporated Areas) |
| Cold Water Creek | Just upstream of Moose Road (SR 1308) | Approximately 0.5 mile upstream of Moose Road (SR 1308) | Rowan County (Unincorporated Areas) |
| Cold Water Creek Tributary 1 | The confluence with Cold Water Creek | Approximately 0.3 mile upstream of Interstate 85 | Rowan County (Unincorporated Areas) |
| Crane Creek (High Rock Lake) | The entire shoreline within Rowan County | | Rowan County (Unincorporated Areas) |
| Crane Creek Tributary 1 | The confluence with Crane Creek | Approximately 0.9 mile upstream of Lake Fork Road (SR 2170) | Rowan County (Unincorporated Areas) |
| Crane Creek Tributary 2 | The confluence with Crane Creek | Approximately 220 feet upstream of Cemetery Drive | Rowan County (Unincorporated Areas), Town of Faith |
| Dutch Buffalo Creek | The Cabarrus/Rowan County boundary | The Cabarrus/Rowan County boundary | Rowan County (Unincorporated Areas) |
| Dutch Buffalo Creek Tributary 1 | The Cabarrus/Rowan County boundary | Approximately 20 feet downstream of SR 2658 | Rowan County (Unincorporated Areas) |

## Table 6—Flooding Sources Studied by Detailed Methods: Limited Detailed

| Source | Riverine Sources | | Affected Communities |
|---|---|---|---|
| | From | To | |
| East Fork Creek | The confluence with Coddle Creek | Approximately 6.0 miles upstream of the confluence with Coddle Creek | Rowan County (Unincorporated Areas) |
| Fisher Branch | The confluence with Second Creek | Approximately 50 feet downstream of Fisher Road (SR 2320) | Town of Rockwell, Rowan County (Unincorporated Areas) |
| Flat Creek | The confluence with Yadkin River | Approximately 1.3 miles upstream of River Road (SR 2152) | Rowan County (Unincorporated Areas) |
| Flat Rock Branch | The confluence with Grants Creek | Approximately 800 feet downstream of Flat Rock Road (SR 1210) | Town of Landis, Rowan County (Unincorporated Areas) |
| Fourth Creek | The confluence with South Yadkin River | The Iredell/Rowan County boundary | Rowan County (Unincorporated Areas) |
| Fourth Creek Tributary 4 | The confluence with Fourth Creek | Approximately 0.5 mile upstream of the confluence with Fourth Creek | Rowan County (Unincorporated Areas) |
| Fourth Creek Tributary 5 | The confluence with Fourth Creek | Approximately 360 feet upstream of Baker Mill Road (SR 1957) | Rowan County (Unincorporated Areas) |
| Grants Creek Tributary 2 | The confluence with Grants Creek | Approximately 870 feet downstream of the Par Drive | City of Salisbury |
| Grants Creek Tributary 3 | The confluence with Grants Creek | Approximately 0.4 mile upstream of the confluence with Grants Creek | City of Salisbury |
| Grants Creek Tributary 4 | The confluence with Grants Creek | Approximately 0.6 mile upstream of the confluence with Grants Creek | City of Salisbury |
| Irish Buffalo Creek Tributary 4 | Approximately 0.7 mile upstream of the confluence with Irish Buffalo Creek | Approximately 0.9 mile upstream of the confluence with Irish Buffalo Creek | Town of Landis, Rowan County (Unincorporated Areas) |
| Irish Buffalo Creek Tributary 5 | Approximately 0.7 mile upstream of the confluence with Irish Buffalo Creek | Approximately 0.8 mile upstream of the confluence with Irish Buffalo Creek | Town of Landis |
| Jump and Run Branch | The confluence with Grants Creek | Approximately 385 feet upstream of Willow Road | Rowan County (Unincorporated Areas), City of Salisbury |
| Kerr Creek | The confluence with Sloans Creek | Approximately 1.4 miles upstream of Corriher Springs Road (SR 1554) | Rowan County (Unincorporated Areas) |
| Little Creek (South) | The confluence with Third Creek | The Iredell/Rowan County boundary | Rowan County (Unincorporated Areas) |

## Table 6—Flooding Sources Studied by Detailed Methods: Limited Detailed

| Source | Riverine Sources | | Affected Communities |
|---|---|---|---|
| | From | To | |
| Mill Creek | The Rowan/Cabarrus County boundary | Approximately 385 feet upstream of Smith Road (SR 1361) | Rowan County (Unincorporated Areas) |
| North Second Creek | The confluence with South Yadkin River | The confluence with Sloan Creek and Back Creek | Rowan County (Unincorporated Areas) |
| Park Creek | The Rowan/Cabarrus County boundary | Approximately 0.5 mile upstream of Smith Road (SR 1360) | Rowan County (Unincorporated Areas) |
| Peeler Branch | The confluence with Second Creek Tributary 1 | Approximately 500 feet upstream of Sides Road | Town of Rockwell, Rowan County (Unincorporated Areas) |
| Riles Creek | The confluence with Yadkin River | Approximately 430 feet upstream of Stokes Ferry Road | Rowan County (Unincorporated Areas) |
| Rocky Branch Tributary 1 | The confluence with Rocky Branch | Approximately 0.5 mile upstream of Pickett Avenue | Rowan County (Unincorporated Areas), Town of Spencer, City of Salisbury |
| Second Creek | The confluence with Yadkin River | Approximately 0.6 mile upstream of the confluence of Second Creek Tributary 3 | Town of Rockwell, Rowan County (Unincorporated Areas) |
| Second Creek Tributary 1 | The confluence with Second Creek | Approximately 200 feet upstream of the confluence of Peeler Branch | Rowan County (Unincorporated Areas) |
| Second Creek Tributary 2 | The confluence with Second Creek | Approximately 440 feet upstream of Miller Street | Rowan County (Unincorporated Areas), Town of Rockwell |
| Second Creek Tributary 3 | The confluence with Second Creek | Approximately 0.5 mile upstream of Winding Brook Lane | Rowan County (Unincorporated Areas) |
| Sills Creek | The confluence with Back Creek | The Iredell/Rowan County boundary | Rowan County (Unincorporated Areas) |
| Sills Creek Tributary 1 | The confluence with Sills Creek | Approximately 0.6 mile upstream of the confluence with Sills Creek | Rowan County (Unincorporated Areas) |
| Sloans Creek | The confluence with North Second Creek | Approximately 0.4 mile upstream of Brown Road (SR 1211) | Rowan County (Unincorporated Areas) |
| South Yadkin River | The confluence with Yadkin River | The Iredell/Rowan/Davie County boundary | Rowan County (Unincorporated Areas), City of Salisbury |

## Table 6—Flooding Sources Studied by Detailed Methods: Limited Detailed

| Source | Riverine Sources | | Affected Communities |
|---|---|---|---|
| | From | To | |
| Third Creek | The confluence with Fourth Creek | The Iredell/Rowan County boundary | Rowan County (Unincorporated Areas), Town of Cleveland |
| Unnamed Stream 1 | The confluence with Fourth Creek | Approximately 0.9 mile upstream of Mount Vernon Road (SR 1986) | Rowan County (Unincorporated Areas) |
| Unnamed Stream 2 | The confluence with Fourth Creek | Approximately 0.5 mile downstream of Rary Road (SR 1978) | Rowan County (Unincorporated Areas) |
| Withrow Creek | The confluence with North Second Creek | The Iredell/Rowan County boundary | Rowan County (Unincorporated Areas) |
| Woodleaf Branch (East) | Lincolnton Road | Approximately 100 feet upstream of Fourth Street | City of Salisbury |
| Woodleaf Branch (West) | The confluence with Withrow Creek | The Iredell/Rowan County boundary | Rowan County (Unincorporated Areas) |
| Yadkin River | The Davidson/ Montgomery/Rowan/Stanly County boundary | The confluence of South Yadkin River | Town of Spencer, Rowan County (Unincorporated Areas) |

Table 7, "Stream Name Changes" contains a list of flooding sources that have been renamed since the previous FIS was published.

## Table 7—Stream Name Changes

| Community | Old Name | New Name |
|---|---|---|
| Rowan County (Unincorporated Areas) | Beaverdam Creek | Beaverdam Creek (East) |
| Rowan County (Unincorporated Areas) | Beaverdam Creek | Beaverdam Creek (West) |
| Rowan County (Unincorporated Areas) | East Fork | East Fork Creek |
| Rowan County (Unincorporated Areas) | Little Creek | Little Creek (South) |
| Town of Landis | Mill Creek | Mill Creek (into Grants Creek) |
| Rowan County (Unincorporated Areas) | Second Creek Tributary | Second Creek Tributary 3 |
| Rowan County (Unincorporated Areas) | Unnamed Stream | Unnamed Stream 1 |
| City of Salisbury | Woodleaf Branch | Woodleaf Branch (East) |
| Rowan County (Unincorporated Areas) | Woodleaf Branch | Woodleaf Branch (West) |

For the flooding sources studied in detail in the county, standard hydrologic and hydraulic methods were used to determine the flood hazard data required for this FIS.

## 5.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak discharge-frequency relationship for each flooding source studied in detail affecting the county.

### Pre-Countywide Analyses

Each jurisdiction within Rowan County, with the exceptions of the Town of Cleveland, had previously printed FIS Reports describing each community's hydrologic analyses. Those analyses have been compiled from the FIS Reports and are summarized below. These analyses remain valid for those flooding sources listed in Table 4, "Flooding Sources Studied by Detailed Methods: Redelineated."

Hydrologic analyses were carried out in the Town of China Grove, the Town of East Spencer, the Town of Faith, the Town of Granite Quarry, the Town of Landis, the Town of Rockwell, the Unincorporated Areas of Rowan County, the City of Salisbury, and the Town of Spencer to establish the peak discharge-frequency relationships for floods of the selected recurrence intervals for each stream studied in detail in the community.

Peak discharge-frequency relationships were established using a method which considers watershed urbanization and was developed by Putnam (U.S. Department of the Interior, 1972). The results from the Putnam method were then checked and compared with a method given in U.S. Geological Survey Publication No. 76-17 (U.S. Department of the Interior, 1976). The Putnam report related flood peak discharges for recurrence intervals ranging up to 100 years (1% annual chance) to drainage area, stream length, stream slope, and percent of basin covered by impervious surfaces. The relations were based on statistical analysis of flood information for approximately 200 sites, 42 of which were in metropolitan areas of the North Carolina Piedmont province. The estimating relations were limited to providing flood discharge at open-channel sites in the Piedmont province of North Carolina where runoff was unaffected by artificial storage or diversion. The U.S. Geological Survey publication No. 76-17 estimated the magnitude and frequency of floods on natural North Carolina streams with drainage areas greater than 0.5 square miles (1.3 square kilometers). For 257 gage sites, the magnitudes of floods having recurrence intervals from 2 to 100 years (50% to 1% annual chance) were provided in the tables. For ungaged sites, equations, graphs, and maps were presented for estimating flood magnitudes. Multiple regression techniques were used to define the relation between flood peak discharges and seven basins and climatic variables. Through regression analysis, stations were divided into Coastal Plain section and the mountains and Piedmont section. The statistical equations were developed for each geographic area. The log-Pearson Type III method was used, based on 22 stream gages in the surrounding area, to provide guidelines for hydrologic analyses (U.S. Water Resources Council, 1976).

Additionally in the Town of East Spencer, Ice Plant Creek, East Spencer High Creek, Railroad Branch, and Jackson Branch have drainage areas that are less than one square mile; therefore only recurrence intervals of the 10% and 1% annual chance floods were evaluated. For Town Creek in the Town of East Spencer, for Crane Creek, Town Creek, and Grants Creek in the City of Salisbury, and for Grants Creek in the Town of Spencer, the hydrologic analyses developed by the U.S. Army Corps of Engineers were incorporated with unpublished data received from the North Carolina Soil and Water Conservation Commission, which included the HEC-2 and WSP-2

computer programs and unit hydrograph methods, to obtain the peak discharge-drainage area relationships for selected flood frequencies (U.S. Army Corps of Engineers, 1976 and North Carolina Department of Natural Resources and Community Development, unpublished).

### Revised Analyses for Countywide FIS

The hydrologic analyses for the Yadkin River basin, except for flooding sources with stream gages, were performed using the urban and rural regression equations developed by the USGS. The urban equations were published in "Estimation of Flood-Frequency Characteristics of Small Urban Streams in North Carolina," Water Resources Investigations Report 96-4084 (U.S. Department of the Interior, 1996). The rural equations were published in "Estimating the Magnitude and Frequency of Floods in Rural Basins in North Carolina, - Revised," Water Resources Investigations Report 01-4207 (U.S. Department of the Interior, 2001). Regression equations are mathematical formulas that relate the flow in the stream to physical factors such as the area of the basin and the percentage of the surface that is impervious (paved). Regression equations are developed by fitting a line through the center of the points on a graph that compares flood flows to basin area. The results reflect the "statistical average" of the data. If a gage station is located on the stream being studied, data from that station can be used to adjust the regression results to more accurately estimate the flood flow. There are three separate regional regression equations that cover North Carolina. Rowan County is located in the hydrologic region known as the Piedmont region. Analyses of historical high-water marks obtained from interviews of county residents were used to confirm the accuracy of the regression equation estimates.

A number of basins for the detailed and limited detailed studied streams in Rowan County contained sufficient urbanization to require application of the USGS North Carolina urban equations. Percents imperviousness for these basins were estimated using a combination of digital orthophotographic data and street centerline data. The recurrence interval discharges for streams draining these urbanized basins were computed using the USGS North Carolina urban regression equations for the Piedmont hydrologic region (WRIR 96-4084). The recurrence interval discharges for all other streams in Rowan County were determined using the USGS North Carolina rural regression equations for the Piedmont hydrologic area (WRIR 01-4207).

A summary of the drainage area-peak discharge relationships for the flooding sources studied by detailed methods is shown in Table 8, "Summary of Discharges."

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Back Creek | The confluence with North Second Creek | 38.6 | * | * | 7,309 | * |
| | Approximately 1.2 miles upstream of the confluence with North Second Creek | 19.4 | * | * | 4,754 | * |
| | Approximately 2.1 miles upstream of the confluence with North Second Creek | 18.4 | * | * | 4,597 | * |
| | Approximately 3.1 miles upstream of the confluence with North Second Creek | 17.4 | * | * | 4,438 | * |
| | Approximately 3.8 miles upstream of the confluence with North Second Creek | 16.5 | 2,132 | 3,563 | 4,287 | 6,312 |
| | Approximately 5.8 miles upstream of the confluence with North Second Creek | 15.4 | 2,042 | 3,418 | 4,116 | 6,067 |
| | Approximately 6.5 miles upstream of the confluence with North Second Creek | 14.4 | 1,952 | 3,273 | 3,944 | 5,822 |
| | Approximately 7.4 miles upstream of the confluence with North Second Creek | 13.4 | * | * | 3,777 | * |
| | Approximately 8.0 miles upstream of the confluence with North Second Creek | 11.9 | * | * | 3,504 | * |
| | Approximately 8.8 miles upstream of the confluence with North Second Creek | 10.7 | * | * | 3,411 | * |
| | Approximately 9.4 miles upstream of the confluence with North Second Creek | 9.7 | * | * | 3,293 | * |
| | The Iredell/Rowan County boundary | 8.6 | * | * | 3,164 | * |
| Back Creek Tributary 1 | The confluence with Back Creek | 1.7 | * | * | 1,019 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area (*square miles*) | Discharges (*cfs*) | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Back Creek Tributary 1 | Approximately 0.6 mile upstream of the confluence with Back Creek | 1.2 | * | * | 812 | * |
| Baker Branch | * | * | * | * | * | * |
| Beaver Creek | At China Grove Road (SR 1238) | 3.8 | 1,125 | 1,875 | 2,225 | 3,050 |
| | Below the confluence of Beaver Creek Tributary | 3.2 | 1,050 | 1,725 | 2,100 | 2,800 |
| | At Ebenezer Road (SR 1322) | 1.8 | 800 | 1,350 | 1,630 | 2,250 |
| | Approximately 1,750 feet upstream of Milton Street | 1.3 | 680 | 1,180 | 1,425 | 1,980 |
| Beaver Creek Tributary | * | * | * | * | * | * |
| Beaverdam Creek (East) | At the confluence with North Second Creek | 5.6 | * | * | 2,176 | * |
| | Approximately 0.7 mile upstream of the confluence with North Second Creek | 3.5 | * | * | 1,633 | * |
| | Approximately 1.6 miles upstream of the confluence with North Second Creek | 2.9 | * | * | 1,457 | * |
| | Approximately 0.5 mile downstream of State Highway 801 | 2.1 | * | * | 1,176 | * |
| | Approximately 0.2 mile upstream of State Highway 801 | 0.5 | * | * | 500 | * |
| Beaverdam Creek (West) | At the confluence with Withrow Creek | 9.6 | * | * | 3,062 | * |
| | Approximately 257 feet upstream of the confluence with Withrow Creek | 8.3 | * | * | 2,791 | * |
| | Approximately 0.8 mile upstream of the confluence with Withrow Creek | 7.4 | * | * | 2,593 | * |
| | Approximately 1.4 miles upstream of the confluence with Withrow Creek | 6.3 | * | * | 2,357 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Beaverdam Creek (West) | Approximately 2.6 miles upstream of the confluence with Withrow Creek | 5.0 | * | * | 2,037 | * |
| | Approximately 3.3 miles upstream of the confluence with Withrow Creek | 4.1 | * | * | 1,801 | * |
| | Approximately 4.1 miles upstream of the confluence with Withrow Creek | 3.0 | * | * | 1,490 | * |
| | Approximately 5.1 miles upstream of the confluence with Withrow Creek | 2.0 | * | * | 1,134 | * |
| | Approximately 6.0 miles upstream of the confluence with Withrow Creek | 1.0 | * | * | 737 | * |
| Bell Branch | * | * | * | * | * | * |
| Bost Branch | At the confluence with Second Creek | 0.4 | * | * | 647 | * |
| Bostian Heights Branch | At the mouth | 4.1 | 920 | 1,620 | 1,950 | 2,750 |
| | At Old Concord Road (SR 1002) | 3.6 | 875 | 1,560 | 1,870 | 2,640 |
| | Approximately 0.6 mile downstream of Daugherty Road (SR 1243) | 2.0 | 864 | 1,498 | 1,827 | 2,764[1] |
| | Approximately 0.5 mile downstream of Daugherty Road (SR 1243) | 1.9 | 507 | 898 | 1,104 | 1,698 |
| | Approximately 739 feet downstream of Daugherty Road (SR 1243) | 0.4 | 191 | 353 | 440 | 697 |
| Byrd Road Tributary | * | * | * | * | * | * |
| Cedar Creek | At the confluence with Yadkin River | 5.0 | * | * | 2,030 | * |
| | Approximately 0.2 mile upstream of River Road (SR 2156) | 4.6 | * | * | 1,919 | * |
| Cemetery Creek | * | * | * | * | * | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area (*square miles*) | Discharges (*cfs*) | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Church Creek | Approximately 0.7 mile downstream of Bringle Ferry Road (SR 1002) | 18.8 | 2,331 | 3,881 | 4,664 | 6,848 |
| | Approximately 0.2 mile upstream of Bringle Ferry Road (SR 1002) | 16.5 | 2,139 | 3,575 | 4,301 | 6,332 |
| | Approximately 0.8 mile upstream of Bringle Ferry Road (SR 1002) | 13.4 | 1,859 | 3,124 | 3,767 | 5,569 |
| | Approximately 0.5 mile downstream of the confluence of Church Creek Tributary 1 | 12.5 | 1,781 | 2,998 | 3,618 | 5,356 |
| | At the confluence of Church Creek Tributary 1 | 8.5 | 1,378 | 2,344 | 2,839 | 4,235 |
| | Approximately 0.9 mile upstream of the confluence of Church Creek Tributary 1 | 7.7 | 1,288 | 2,198 | 2,665 | 3,983 |
| | Approximately 1.2 miles upstream of the confluence of Church Creek Tributary 1 | 7.1 | 1,223 | 2,090 | 2,536 | 3,797 |
| | Approximately 1.5 miles upstream of the confluence of Church Creek Tributary 1 | 6.9 | 1,199 | 2,052 | 2,491 | 3,731 |
| | Approximately 2.1 miles upstream of the confluence of Church Creek Tributary 1 | 6.5 | 1,156 | 1,981 | 2,406 | 3,608 |
| | Approximately 2.7 miles upstream of the confluence of Church Creek Tributary 1 | 5.4 | 1,013 | 1,745 | 2,124 | 3,198 |
| | Approximately 1.0 mile downstream of the confluence of Church Creek Tributary 2 | 5.2 | 990 | 1,707 | 2,078 | 3,131 |
| | Approximately 0.8 mile downstream of the confluence of Church Creek Tributary 2 | 4.7 | 926 | 1,602 | 1,952 | 2,947 |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Church Creek | Approximately 0.6 mile downstream of the confluence of Church Creek Tributary 2 | 4.4 | 884 | 1,532 | 1,868 | 2,824 |
| | At the confluence of Church Creek Tributary 2 | 1.3 | 402 | 720 | 888 | 1,375 |
| | Approximately 0.3 mile upstream of the confluence of Church Creek Tributary 2 | 1.0 | 340 | 612 | 758 | 1,179 |
| | Approximately 0.6 mile upstream of the confluence of Church Creek Tributary 2 | 0.6 | 230 | 421 | 524 | 825 |
| | Approximately 0.64 mile upstream of the confluence of Church Creek Tributary 2 | 0.6 | 225 | 412 | 513 | 809 |
| | Approximately 0.8 mile upstream of the confluence of Church Creek Tributary 2 | 0.5 | 208 | 381 | 476 | 751 |
| | Approximately 1.0 mile upstream of the confluence of Church Creek Tributary 2 | 0.2 | 112 | 211 | 265 | 427 |
| | Approximately 1.2 miles upstream of the confluence of Church Creek Tributary 2 | 0.2 | 97 | 185 | 233 | 376 |
| | Approximately 1.5 miles upstream of the confluence of Church Creek Tributary 2 | 0.1 | 74 | 142 | 180 | 294 |
| Church Creek Tributary 1 | At the confluence with Church Creek | 1.5 | * | * | 962 | * |
| | Approximately 330 feet upstream of Stokes Ferry Road (SR 1004) | 1.4 | * | * | 927 | * |
| | Approximately 0.3 mile downstream of Fish Pond Road (SR 2309) | 1.3 | * | * | 887 | * |
| | Approximately 260 feet upstream of Fish Pond Road (SR 2309) | 1.2 | * | * | 842 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Church Creek Tributary 1 | Approximately 0.4 mile upstream of Fish Pond Road (SR 2309) | 1.1 | * | * | 792 | * |
| | Approximately 0.6 mile upstream of Fish Pond Road (SR 2309) | 1.0 | * | * | 736 | * |
| | Approximately 0.9 mile upstream of Fish Pond Road (SR 2309) | 0.9 | * | * | 696 | * |
| | Approximately 0.9 mile downstream of U.S. Highway 52 / Salisbury Avenue | 0.8 | * | * | 645 | * |
| | Approximately 0.8 mile downstream of U.S. Highway 52 / Salisbury Avenue | 0.7 | * | * | 621 | * |
| | Approximately 0.5 mile downstream of US Highway 52 / Salisbury Avenue | 0.6 | * | * | 580 | * |
| | Approximately 0.3 mile downstream of US Highway 52 / Salisbury Avenue | 0.5 | * | * | 551 | * |
| | Approximately 840 feet downstream of US Highway 52 / Salisbury Avenue | 0.3 | * | * | 465 | * |
| Church Creek Tributary 1A | At the confluence with Church Creek Tributary 1 | 2.1 | * | * | 1,192 | * |
| | Approximately 520 feet upstream of Union Church Road (SR 2132) | 2.0 | * | * | 1,160 | * |
| | Approximately 450 feet upstream of Stokes Ferry Road (SR 1004) | 1.8 | * | * | 1,086 | * |
| | Approximately 0.5 mile upstream of Stokes Ferry Road (SR 1004) | 1.6 | * | * | 989 | * |
| | Approximately 0.3 mile downstream of Unnamed Road | 1.3 | * | * | 866 | * |
| | Approximately 330 feet upstream of Unnamed Road | 1.2 | * | * | 826 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Church Creek Tributary 1A | Approximately 540 feet downstream of Fish Pond Road (SR 2309) | 0.7 | * | * | 579 | * |
| | Approximately 110 feet downstream of Fish Pond Road (SR 2309) | 0.6 | * | * | 556 | * |
| | Approximately 0.2 mile upstream of Fish Pond Road (SR 2309) | 0.6 | * | * | 535 | * |
| | Approximately 0.3 mile upstream of Fish Pond Road (SR 2309) | 0.5 | * | * | 479 | * |
| | Approximately 0.5 mile upstream of Fish Pond Road (SR 2309) | 0.3 | * | * | 314 | * |
| Church Creek Tributary 2 | At the confluence with Church Creek | 2.7 | * | * | 1,403 | * |
| | Approximately 0.2 mile downstream of Stone Road | 2.2 | * | * | 1,238 | * |
| | Approximately 400 feet upstream of Stone Road | 2.0 | * | * | 1,188 | * |
| | Approximately 0.5 mile upstream of Stone Road | 1.2 | * | * | 906 | * |
| | Approximately 0.2 mile downstream of Percy Lane | 1.1 | * | * | 855 | * |
| | Approximately 750 feet downstream of Percy Lane | 0.9 | * | * | 815 | * |
| | Approximately 545 feet downstream of Percy Lane | 0.9 | * | * | 797 | * |
| | Approximately 335 feet upstream of Percy Lane | 0.8 | * | * | 780 | * |
| Coddle Creek | At the Cabarrus/Iredell/ Rowan County boundary | 15.6 | 2,903 | 4,791 | 5,738 | 8,370 |
| Cold Water Creek | Approximately 0.5 mile upstream of Moose Road (SR 1308) | 12.8 | 2,300 | 3,630 | 4,170 | 5,480 |
| | At Old Beatty Ford Road (SR 1211) | 7.2 | 1,675 | 2,700 | 3,120 | 4,190 |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Cold Water Creek | At Daugherty Road (SR 1243) | 4.2 | 1,230 | 2,040 | 2,400 | 3,220 |
| | At Pine Ridge Road (SR 1232) | 3.4 | 1,100 | 1,850 | 2,200 | 2,960 |
| | Approximately 0.5 mile upstream of Lentz Road | 3.2 | 600 | 1,350 | 1,700 | 2,460 |
| Cold Water Creek Tributary | * | * | * | * | * | * |
| Cold Water Creek Tributary 1 | At the confluence with Cold Water Creek | 1.3 | * | * | 892 | * |
| | Approximately 653 feet upstream of the confluence with Cold Water Creek | 1.2 | * | * | 850 | * |
| | Approximately 0.2 mile upstream of the confluence with Cold Water Creek | 1.2 | * | * | 841 | * |
| Concord Road Creek | * | * | * | * | * | * |
| Correll Creek | * | * | * | * | * | * |
| Crane Creek | Approximately 1.3 miles upstream of the confluence with Church Creek | 46.9 | 9,238 | 12,040 | 12,860 | 14,966 |
| | At the confluence of Town Creek | 25.1 | 7,093 | 9,240 | 9,819 | 11,293 |
| | Approximately 1.1 miles upstream of the confluence of Town Creek | 24.0 | 7,026 | 9,131 | 9,693 | 11,121 |
| | Approximately 2.4 miles upstream of the confluence of Town Creek | 22.1 | 6,879 | 8,912 | 9,444 | 10,793 |
| | Approximately 4.7 miles upstream of the confluence of Town Creek | 19.7 | 6,710 | 8,647 | 9,139 | 10,382 |
| | Approximately 1.1 miles downstream of US Highway 52 / East Innes Street | 18.6 | 6,122 | 8,011 | 8,506 | 9,763 |
| | Approximately 0.2 miles downstream of US Highway 52 / East Innes Street | 18.3 | 6,077 | 7,952 | 8,442 | 9,687 |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Crane Creek | At the confluence of Tar Branch | 17.3 | 5,756 | 7,586 | 8,068 | 9,297 |
| | At North Main Street | 14.7 | 3,100 | 5,400 | 6,700 | 11,200 |
| | At Faith Road | 13.1 | 2,850 | 4,950 | 6,200 | 10,200 |
| | At St. Pauls Church Road | 9.4 | 2,300 | 3,900 | 4,800 | 7,700 |
| | At Glover Road (downstream crossing) | 6.6 | 2,100 | 3,500 | 4,300 | 6,800 |
| | At Glover Road (upstream crossing) | 4.8 | 1,700 | 2,800 | 3,500 | 5,200 |
| Crane Creek Tributary 1 | At the confluence with Crane Creek | 2.9 | * | * | 1,837 | * |
| | Approximately 0.2 mile upstream of the confluence with Crane Creek | 2.8 | * | * | 1,776 | * |
| | Approximately 0.5 mile upstream of the confluence with Crane Creek | 2.7 | * | * | 1,755 | * |
| | Approximately 0.3 mile downstream of Lake Fork Road | 2.3 | * | * | 1,620 | * |
| | Approximately 930 feet downstream of Lake Fork Road | 2.2 | * | * | 1,600 | * |
| | Approximately 0.3 mile upstream of Lake Fork Road | 2.0 | * | * | 1,568 | * |
| | Approximately 0.4 mile upstream of Lake Fork Road | 1.8 | * | * | 1,495 | * |
| | Approximately 0.8 mile upstream of Lake Fork Road | 1.6 | * | * | 1,466 | * |
| Crane Creek Tributary 2 | At the confluence with Crane Creek | 0.7 | * | * | 1,232 | * |
| | Approximately 0.3 mile upstream of the confluence with Crane Creek | 0.7 | * | * | 1,199 | * |
| | Approximately 0.5 mile upstream of the confluence with Crane Creek | 0.6 | * | * | 1,126 | * |
| | Approximately 0.3 mile downstream of Private Road | 0.5 | * | * | 1,085 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Crane Creek Tributary 2 | Approximately 70 feet downstream of Private Road | 0.4 | * | * | 1,058 | * |
| | Approximately 600 feet downstream of Lippard Road | 0.3 | * | * | 901 | * |
| | Approximately 410 feet upstream of Lippard Road | 0.3 | * | * | 741 | * |
| | Approximately 0.3 mile upstream of Lippard Road | 0.2 | * | * | 700 | * |
| | Approximately 370 feet downstream of Mt. Hope Church Road | 0.2 | * | * | 592 | * |
| | Approximately 150 feet upstream of Mt. Hope Church Road | 0.1 | * | * | 514 | * |
| | Approximately 0.3 mile downstream of Cemetery Drive | 0.1 | * | * | 470 | * |
| | Approximately 0.2 mile downstream of Cemetery Drive | 0.1 | * | * | 417 | * |
| Draft Branch | At the confluence with Grants Creek | 10.7 | 1,600 | 2,710 | 3,190 | 4,940 |
| | At Sherrills Ford Road (SR 1526) | 5.0 | 1,050 | 1,830 | 2,160 | 3,150 |
| | At Neel Road (SR 1729) | 1.4 | 525 | 970 | 1,190 | 1,720 |
| Draft Branch Tributary | * | * | * | * | * | * |
| Dutch Buffalo Creek | At the Cabarrus/Rowan County boundary | 9.8 | * | * | 3,400 | * |
| | Below the confluence of Bostian Heights Branch | 9.7 | 1,500 | 2,560 | 3,010 | 3,810 |
| | Above the confluence of Bostian Heights Branch | 2.5 | 580 | 1,100 | 1,340 | 1,930 |
| | At Rogers Road (SR 2573) | 1.1 | 317 | 670 | 850 | 1,300 |
| Dutch Buffalo Creek Tributary 1 | At the Cabarrus/Rowan County boundary | 3.9 | * | * | 1,747 | * |
| East Centerview Branch | * | * | * | * | * | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| East Fork Creek | At the Cabarrus/Rowan County boundary | 10.6 | * | * | 3,253 | * |
| | Approximately 0.6 mile upstream of the Cabarrus/Rowan County boundary | 9.8 | * | * | 3,093 | * |
| | Approximately 1.2 miles upstream of the Cabarrus/Rowan County boundary | 7.1 | * | * | 2,534 | * |
| | Approximately 4.0 miles upstream of the Cabarrus/Rowan County boundary | 6.4 | * | * | 2,369 | * |
| | Approximately 4.8 miles upstream of the Cabarrus/Rowan County boundary | 3.4 | * | * | 1,603 | * |
| | Approximately 5.2 miles upstream of the Cabarrus/Rowan County boundary | 3.1 | * | * | 1,504 | * |
| | Approximately 5.7 miles upstream of the Cabarrus/Rowan County boundary | 2.5 | * | * | 1,307 | * |
| | Approximately 6.2 miles upstream of the Cabarrus/Rowan County boundary | 1.6 | * | * | 1,006 | * |
| | Approximately 6.5 miles upstream of the Cabarrus/Rowan County boundary | 1.5 | * | * | 957 | * |
| | Approximately 6.9 miles upstream of the Cabarrus/Rowan County boundary | 1.0 | * | * | 751 | * |
| | Approximately 7.2 miles upstream of the Cabarrus/Rowan County boundary | 0.9 | * | * | 672 | * |
| | Approximately 7.2 miles upstream of the Cabarrus/Rowan County boundary | 0.5 | * | * | 490 | * |
| East Spencer High Creek | * | * | * | * | * | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Faith Road Branch | * | * | * | * | * | * |
| Fisher Branch | At the confluence with Second Creek | 5.2 | * | * | 2,084 | * |
| | Approximately 0.2 mile upstream of Lower Stone Church Road | 4.9 | * | * | 2,015 | * |
| | At Cannon Street | 4.5 | * | * | 1,910 | * |
| | Approximately 0.3 mile downstream of NC Highway 152 / China Grove Highway | 4.2 | * | * | 1,823 | * |
| | Approximately 84 feet upstream of NC Highway 152 / China Grove Highway | 3.8 | * | * | 1,705 | * |
| | Approximately 0.3 mile upstream of NC Highway 152 / China Grove Highway | 3.3 | * | * | 1,572 | * |
| | Approximately 0.7 mile upstream of NC Highway 152 / China Grove Highway | 2.8 | * | * | 1,429 | * |
| | Approximately 1.0 mile upstream of NC Highway 152 / China Grove Highway | 2.6 | * | * | 1,367 | * |
| | Approximately 1.2 miles upstream of NC Highway 152 / China Grove Highway | 2.2 | * | * | 1,224 | * |
| Five Forks Tributary | * | * | * | * | * | * |
| Flat Creek | At the confluence with Yadkin River | 9.0 | * | * | 2,936 | * |
| | Approximately 0.6 mile downstream of River Road (SR 2152) | 8.6 | * | * | 2,852 | * |
| | Approximately 75 feet upstream of River Road (SR 2152) | 6.6 | * | * | 2,432 | * |
| | Approximately 0.3 mile upstream of River Road (SR 2152) | 5.9 | * | * | 2,250 | * |
| | Approximately 0.9 mile upstream of River Road (SR 2152) | 5.5 | * | * | 2,150 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area (*square miles*) | Discharges (*cfs*) | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Flat Creek | Approximately 1.0 mile upstream of River Road (SR 2152) | 5.4 | * | * | 2,129 | * |
| Flat Rock Branch | At the confluence with Grants Creek | 2.2 | * | * | 1,216 | * |
| | Approximately 264 feet upstream of the confluence with Grants Creek | 2.1 | * | * | 1,188 | * |
| | Approximately 0.4 mile upstream of the confluence with Grants Creek | 1.8 | * | * | 1,058 | * |
| | Approximately 0.6 mile upstream of the confluence with Grants Creek | 1.5 | * | * | 968 | * |
| | Approximately 0.8 mile upstream of the confluence with Grants Creek | 1.4 | * | * | 931 | * |
| Fourth Creek | At the confluence with South Yadkin River | 190.0 | * | * | 19,315 | * |
| | At the confluence of Third Creek | 83.3 | * | * | 12,763 | * |
| | Approximately 0.2 mile downstream of the confluence of Unnamed Stream 1 | 78.6 | * | * | 12,591 | * |
| | At the confluence of Unnamed Stream 1 | 74.6 | * | * | 12,433 | * |
| | At the confluence of Fourth Creek Tributary 4 | 72.7 | * | * | 12,351 | * |
| | At the confluence of Fourth Creek Tributary 5 | 69.2 | * | * | 12,202 | * |
| | Approximately 1.0 mile downstream of the confluence of Unnamed Stream 2 | 65.7 | * | * | 12,030 | * |
| | At the confluence of Unnamed Stream 2 | 61.2 | * | * | 11,826 | * |
| | Approximately 0.8 mile downstream of the confluence of Fourth Creek Tributary 6 | 58.6 | * | * | 11,691 | * |
| Fourth Creek Tributary 4 | At the confluence with Fourth Creek | 0.6 | * | * | 524 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area (*square miles*) | Discharges (*cfs*) | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Fourth Creek Tributary 4 | Approximately 0.3 mile upstream of the confluence with Fourth Creek | 0.4 | * | * | 425 | * |
| Fourth Creek Tributary 5 | At the confluence with Fourth Creek | 3.1 | * | * | 1,501 | * |
| | Approximately 0.5 mile upstream of the confluence with Fourth Creek | 2.6 | * | * | 1,352 | * |
| Grants Creek | At the confluence with Yadkin River | 68.5 | 8,234 | 11,440 | 12,510 | 15,364 |
| | At the confluence of Rowan Avenue Park Stream | 65.2 | 7,937 | 11,066 | 12,110 | 14,899 |
| | At the confluence of Third Street Creek | 63.8 | 7,874 | 10,976 | 12,009 | 14,766 |
| | At the confluence of Lomax Creek | 63.7 | 7,860 | 10,960 | 11,991 | 14,747 |
| | At the confluence of Sixth Street Branch | 62.5 | 7,790 | 10,864 | 11,884 | 14,611 |
| | At the confluence of Rocky Branch | 61.3 | 7,638 | 10,680 | 11,692 | 14,399 |
| | At the confluence of Henderson Branch | 59.5 | 7,313 | 10,298 | 11,296 | 13,976 |
| | At the confluence of Mahaley Branch | 55.9 | 6,888 | 9,775 | 10,744 | 13,354 |
| | At the confluence of Jump and Run Branch | 51.3 | 6,592 | 9,371 | 10,299 | 12,795 |
| | At the confluence of Woodleaf Branch (East) | 48.1 | 6,008 | 8,671 | 9,571 | 12,328 |
| | At the confluence of Draft Branch | 37.6 | 5,298 | 7,683 | 8,476 | 10,626 |
| | At the confluence of Grants Creek Tributary 2 | 36.8 | 5,154 | 7,505 | 8,290 | 10,421 |
| | At the confluence of Grants Creek Tributary 3 | 35.4 | 4,948 | 7,246 | 8,015 | 10,110 |
| | At the confluence of Grants Creek Tributary 4 | 33.7 | 4,783 | 7,025 | 7,776 | 9,819 |
| | Approximately 0.6 mile downstream of Airport Road | 32.1 | 4,569 | 6,750 | 7,482 | 9,482 |
| | Approximately 0.3 mile upstream of Airport Road | 29.0 | 4,307 | 6,387 | 7,082 | 8,982 |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area (*square miles*) | Discharges (*cfs*) | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Grants Creek | Approximately 0.2 mile downstream of the confluence of Little Creek | 28.0 | 4,240 | 6,290 | 6,973 | 8,841 |
| | At the confluence of Little Creek | 19.4 | 3,946 | 5,739 | 6,305 | 7,827 |
| | Approximately 0.2 mile upstream of the confluence of Little Creek | 19.2 | 3,876 | 5,655 | 6,219 | 7,736 |
| | Approximately 0.9 mile upstream of the confluence of Little Creek | 17.9 | 3,417 | 5,097 | 5,641 | 7,122 |
| | Approximately 1.5 miles upstream of the confluence of Little Creek | 16.6 | 2,957 | 4,528 | 5,051 | 6,493 |
| | Approximately 2.0 miles upstream of the confluence of Little Creek | 15.5 | 2,741 | 4,242 | 4,745 | 6,140 |
| | Approximately 2.3 miles upstream of the confluence of Little Creek | 14.7 | 2,654 | 4,116 | 4,605 | 5,961 |
| | Approximately 0.3 mile downstream of the confluence of Petrea Branch | 13.7 | 2,471 | 3,871 | 4,342 | 5,655 |
| | At the confluence of Petrea Branch | 12.9 | 2,287 | 3,625 | 4,081 | 6,037[2] |
| | At the confluence of Lake Wright Branch | 5.3 | 1,881 | 2,856 | 3,148 | 3,938 |
| | Approximately 0.2 mile downstream of Church Street / State Highway 152 | 4.9 | 1,791 | 2,729 | 3,009 | 3,769 |
| | Approximately 0.5 mile upstream of Church Street / State Highway 152 | 4.1 | 1,526 | 2,372 | 2,629 | 3,331 |
| | Approximately 0.9 mile upstream of Church Street / State Highway 152 | 3.9 | 1,462 | 2,283 | 2,532 | 3,215 |
| | Approximately 0.4 mile downstream of the confluence of Flat Rock Branch | 3.2 | 1,353 | 2,113 | 2,341 | 2,963 |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Grants Creek | At the confluence of Flat Rock Branch | 0.9 | 891 | 1,343 | 1,456 | 1,752 |
| | Approximately 0.1 mile downstream of Mount Moriah Church Road | 0.8 | 851 | 1,291 | 1,402 | 1,694 |
| | At Mount Moriah Church Road | 0.7 | 714 | 1,113 | 1,217 | 1,496 |
| | Approximately 0.2 mile upstream of Mount Moriah Church Road | 0.6 | 542 | 881 | 976 | 1,233 |
| | Approximately 0.3 mile upstream of Mount Moriah Church Road | 0.5 | 468 | 779 | 868 | 1,114 |
| | Approximately 0.4 mile upstream of Mount Moriah Church Road | 0.5 | 420 | 710 | 794 | 1,029 |
| | Approximately 0.6 mile upstream of Mount Moriah Church Road | 0.4 | 391 | 665 | 745 | 968 |
| | Approximately 0.8 mile upstream of Mount Moriah Church Road | 0.2 | 256 | 441 | 493 | 636 |
| Grants Creek Tributary 2 | At the confluence with Grants Creek | 0.4 | * | * | 812 | * |
| | Approximately 0.2 mile upstream of the confluence with Grants Creek | 0.4 | * | * | 786 | * |
| | Approximately 0.3 mile upstream of the confluence with Grants Creek | 0.3 | * | * | 763 | * |
| Grants Creek Tributary 3 | At the confluence with Grants Creek | 1.1 | * | * | 1,204 | * |
| | Approximately 920 feet upstream of the confluence with Grants Creek | 1.1 | * | * | 1,194 | * |
| | Approximately 0.4 mile upstream of the confluence with Grants Creek | 1.0 | * | * | 1,159 | * |
| Grants Creek Tributary 4 | At the confluence with Grants Creek | 0.9 | * | * | 933 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Grants Creek Tributary 4 | Approximately 0.4 mile upstream of the confluence with Grants Creek | 0.8 | * | * | 890 | * |
| | Approximately 0.5 mile upstream of the confluence with Grants Creek | 0.7 | * | * | 878 | * |
| | Approximately 0.7 mile upstream of the confluence with Grants Creek | 0.6 | * | * | 848 | * |
| Gravel Pit Branch | * | * | * | * | * | * |
| Henderson Branch | * | * | * | * | * | * |
| Henderson Branch Tributary | * | * | * | * | * | * |
| Hopkins Street Branch | * | * | * | * | * | * |
| Ice Plant Creek | * | * | * | * | * | * |
| Innis Street Creek | * | * | * | * | * | * |
| Irish Buffalo Creek | At Lake Kannapolis Dam | 9.0 | 1,450 | 2,450 | 2,800 | 4,490 |
| | Approximately 250 feet upstream of Cannon Farm Road | 5.7 | 1,052 | 1,809 | 2,200 | 3,309 |
| | Approximately 712 feet upstream of Cannon Farm Road | 4.8 | 937 | 1,620 | 1,974 | 2,979 |
| | Approximately 0.6 mile upstream of Cannon Farm Road | 4.5 | 902 | 1,561 | 1,903 | 2,876 |
| | Approximately 0.5 mile downstream of Saw Road | 3.6 | 782 | 1,362 | 1,664 | 2,525 |
| | Approximately 899 feet downstream of Saw Road | 3.1 | 711 | 1,242 | 1,519 | 2,312 |
| | Approximately 324 feet upstream of Saw Road | 2.6 | 634 | 1,113 | 1,364 | 2,083 |
| | Approximately 356 feet downstream of Echo Hollow Drive | 1.2 | 381 | 682 | 843 | 1,307 |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Irish Buffalo Creek | Approximately 1,065 feet upstream of Echo Hollow Drive | 0.4 | 170 | 314 | 393 | 625 |
| | Approximately 1.0 mile upstream of Echo Hollow Drive | 0.2 | 114 | 215 | 270 | 434 |
| Irish Buffalo Creek Tributary 4 | Approximately 0.5 mile upstream of the confluence with Irish Buffalo Creek | 0.6 | * | * | 641 | * |
| Irish Buffalo Creek Tributary 5 | At the confluence with Irish Buffalo Creek | 0.6 | * | * | 545 | * |
| Jackson Branch | * | * | * | * | * | * |
| Julian Tributary | At the confluence with Town Creek | 3.2 | 810 | 1,450 | 1,750 | 2,480 |
| | At Julian Road | 1.3 | 470 | 855 | 1,070 | 1,580 |
| Jump and Run Branch | At the confluence with Grants Creek | 3.5 | * | * | 1,615 | * |
| | Approximately 0.5 mile upstream of the confluence with Grants Creek | 2.9 | * | * | 1,550 | * |
| | Approximately 0.7 mile upstream of the confluence with Grants Creek | 2.8 | * | * | 1,525 | * |
| | Approximately 0.2 mile downstream of N. Jake Alexander Boulevard / U.S. Highway 601 | 2.6 | * | * | 1,336 | * |
| | Approximately 290 feet downstream of N. Jake Alexander Boulevard / U.S. Highway 601 | 1.8 | * | * | 1,268 | * |
| | Approximately 650 feet upstream of N. Jake Alexander Boulevard / U.S. Highway 601 | 1.3 | * | * | 1,092 | * |
| | Approximately 0.5 mile upstream of N. Jake Alexander Boulevard / U.S. Highway 601 | 1.1 | * | * | 1,028 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Jump and Run Branch | Approximately 570 feet downstream of Woodleaf Road | 0.9 | * | * | 972 | * |
| | Approximately 170 feet upstream of Woodleaf Road | 0.9 | * | * | 958 | * |
| | Approximately 980 feet upstream of Woodleaf Road | 0.7 | * | * | 862 | * |
| | Approximately 0.4 mile upstream of Woodleaf Road | 0.6 | * | * | 816 | * |
| | Approximately 0.3 mile downstream of Ashbrook Road | 0.5 | * | * | 771 | * |
| | Approximately 890 feet downstream of Ashbrook Road | 0.5 | * | * | 755 | * |
| | Just upstream of Ashbrook Road | 0.4 | * | * | 643 | * |
| | Approximately 920 feet downstream of White Oaks Drive | 0.3 | * | * | 565 | * |
| | Just upstream of White Oaks Drive | 0.2 | * | * | 448 | * |
| Kerr Creek | At the confluence with Sloans Creek | 11.9 | * | * | 3,509 | * |
| | Approximately 0.6 mile downstream of Mooresville Road / NC Highway 150 | 10.9 | * | * | 3,314 | * |
| | At Mooresville Road / NC Highway 150 | 9.9 | * | * | 3,123 | * |
| | Approximately 0.8 mile upstream of Mooresville Road / NC Highway 150 | 8.9 | * | * | 2,919 | * |
| | Approximately 1.6 miles upstream of Mooresville Road / NC Highway 150 | 7.9 | * | * | 2,713 | * |
| | Approximately 2.1 miles upstream of Mooresville Road / NC Highway 150 | 6.9 | * | * | 2,486 | * |
| | Approximately 2.6 miles upstream of Mooresville Road / NC Highway 150 | 5.8 | * | * | 2,230 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area (*square miles*) | Discharges (*cfs*) | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Kerr Creek | Approximately 3.1 miles upstream of Mooresville Road / NC Highway 150 | 4.2 | * | * | 1,823 | * |
| | Approximately 3.6 miles upstream of Mooresville Road / NC Highway 150 | 2.2 | * | * | 1,202 | * |
| | Approximately 4.2 miles upstream of Mooresville Road / NC Highway 150 | 1.4 | * | * | 906 | * |
| | Approximately 4.4 miles upstream of Mooresville Road / NC Highway 150 | 0.8 | * | * | 651 | * |
| | Approximately 4.9 miles upstream of Mooresville Road / NC Highway 150 | 0.5 | * | * | 488 | * |
| Klutz Branch | At the confluence with Legion Park Branch | 0.2 | 219 | 391 | 441 | 584 |
| | Approximately 528 feet upstream of the confluence with Legion Park Branch | 0.2 | 199 | 361 | 409 | 546 |
| | Approximately 0.2 mile upstream of the confluence with Legion Park Branch | 0.1 | 177 | 325 | 370 | 497 |
| | Approximately 0.23 mile upstream of the confluence with Legion Park Branch | 0.1 | 95 | 192 | 224 | 321 |
| Lake Wright Branch | At Mouth | 8.1 | 1,280 | 2,300 | 2,650 | 4,150 |
| | At Barnhart Road (SR 1542) | 5.8 | 1,040 | 1,780 | 2,200 | 3,410 |
| | At Stirewalt Road (SR 1541) | 4.9 | 920 | 1,610 | 2,000 | 3,110 |
| | At Brown Road (SR 1211) | 3.5 | 740 | 1,330 | 1,670 | 2,600 |
| | At Lake Wright Road (SR 1638) | 2.7 | 640 | 1,160 | 1,470 | 2,270 |
| Legion Park Branch | At the confluence with Trexler Creek | 0.5 | 500 | 820 | 909 | 1,154 |
| | Approximately 0.3 mile upstream of the confluence with Trexler Creek | 0.5 | 469 | 772 | 856 | 1,087 |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Legion Park Branch | Approximately 0.5 mile upstream of the confluence with Trexler Creek | 0.4 | 445 | 733 | 813 | 1,032 |
| | Approximately 0.6 mile upstream of the confluence with Trexler Creek | 0.4 | 430 | 710 | 787 | 997 |
| | Approximately 0.7 mile upstream of the confluence with Trexler Creek | 0.4 | 422 | 696 | 771 | 975 |
| | Approximately 0.2 mile downstream of the confluence of Klutz Branch | 0.3 | 393 | 652 | 723 | 918 |
| | Approximately 445 feet downstream of the confluence of Klutz Branch | 0.3 | 358 | 600 | 667 | 852 |
| | At the confluence of Klutz Branch | 0.1 | 204 | 349 | 388 | 493 |
| | Approximately 0.2 mile upstream of the confluence of Klutz Branch | 0.1 | 140 | 249 | 279 | 361 |
| Little Creek | At the confluence with Grants Creek | 8.2 | 1,290 | 2,180 | 2,680 | 4,185 |
| | At Shue Road (SR 1506) | 7.6 | 1,220 | 2,100 | 2,550 | 3,970 |
| | At Miller Road (SR 1509) | 6.1 | 1,110 | 1,955 | 2,335 | 3,475 |
| | At Cooper Road (SR 1534) | 3.3 | 780 | 1,410 | 1,710 | 2,425 |
| | At Weaver Road (SR 1535) | 1.5 | 510 | 960 | 1,175 | 1,720 |
| Little Creek (South) | At the confluence with Third Creek | 3.5 | * | * | 1,630 | * |
| | Approximately 0.8 mile upstream of the confluence with Third Creek | 2.9 | * | * | 1,448 | * |
| | Approximately 1.3 miles upstream of the confluence with Third Creek | 2.4 | * | * | 1,278 | * |
| Lomax Creek | * | * | * | * | * | * |
| Mahaley Branch | * | * | * | * | * | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Mahaley Branch Tributary | * | * | * | * | * | * |
| Main Street Tributary | * | * | * | * | * | * |
| Maple Avenue Branch | * | * | * | * | * | * |
| Mill Creek (into Grants Creek) | * | * | * | * | * | * |
| Mill Creek | Approximately 250 feet downstream of Tuckaseegee Road | 3.7 | * | * | 1,688 | * |
| | Approximately 0.4 mile upstream of the Rowan/Cabarrus County boundary | 2.6 | * | * | 1,353 | * |
| | Approximately 1.2 miles upstream of the Rowan/Cabarrus County boundary | 1.6 | * | * | 1,016 | * |
| | Approximately 1.8 miles upstream of the Rowan/Cabarrus County boundary | 1.2 | * | * | 820 | * |
| | Approximately 2.3 miles upstream of the Rowan/Cabarrus County boundary | 0.8 | * | * | 664 | * |
| | Approximately 2.4 miles upstream of the Rowan/Cabarrus County boundary | 0.4 | * | * | 434 | * |
| Moose Branch | * | * | * | * | * | * |
| North Fork Tributary | * | * | * | * | * | * |
| North Second Creek | At the confluence with South Yadkin river | 141.2 | * | * | 12,683 | * |
| | Approximately 4.6 miles upstream of the confluence with South Yadkin River | 133.7 | * | * | 11,844 | * |
| | Approximately 1.1 miles downstream of the confluence of Beaverdam Creek (East) | 123.7 | * | * | 10,745 | * |
| | At the confluence of Beaverdam Creek (East) | 117.9 | * | * | 10,130 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area (*square miles*) | Discharges (*cfs*) | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| North Second Creek | At U.S. Highway 70 / Statesville Boulevard | 113.3 | * | * | 10,112 | * |
| | Approximately 1.2 miles upstream of U.S. Highway 70 / Statesville Boulevard | 63.4 | * | * | 8,780 | * |
| | Approximately 2.0 miles upstream of U.S. Highway 70 / Statesville Boulevard | 59.9 | * | * | 8,593 | * |
| Park Avenue Branch | * | * | * | * | * | * |
| Park Creek | Approximately 0.5 mile downstream of the Cabarrus / Rowan County boundary | 4.5 | * | * | 1,920 | * |
| | Approximately 865 feet upstream of the Cabarrus / Rowan County boundary | 4.0 | * | * | 1,785 | * |
| | Approximately 0.8 mile upstream of the Cabarrus / Rowan County boundary | 3.1 | * | * | 1,507 | * |
| | Approximately 1,171 feet downstream of Wright Road (SR 1363) | 2.6 | * | * | 1,366 | * |
| | Approximately 1,814 feet upstream of Wright Road (SR 1363) | 2.1 | * | * | 1,198 | * |
| | Approximately 0.5 mile downstream of Smith Road (SR 1360) | 1.7 | * | * | 1,052 | * |
| | Approximately 384 feet downstream of Smith Road (SR 1360) | 1.4 | * | * | 903 | * |
| | Approximately 207 feet upstream of Smith Road (SR 1360) | 0.7 | * | * | 597 | * |
| | Approximately 0.4 mile upstream of Smith Road (SR 1360) | 0.6 | * | * | 514 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Park Creek (into Quarry Creek) | * | * | * | * | * | * |
| Peeler Branch | At the confluence with Second Creek Tributary 1 | 1.1 | * | * | 1,132 | * |
| | Approximately 0.6 mile upstream of Troxler Road | 0.8 | * | * | 904 | * |
| | Approximately 450 feet upstream of Sides Road | 0.6 | * | * | 904 | * |
| Petrea Branch | At the confluence with Grants Creek | 0.7 | 533 | 884 | 986 | 1,267 |
| | Approximately 0.3 mile upstream of the confluence with Grants Creek | 0.6 | 508 | 846 | 944 | 1,216 |
| | Approximately 0.5 mile upstream of the confluence with Grants Creek | 0.4 | 370 | 636 | 714 | 934 |
| | Approximately 0.53 mile upstream of the confluence with Grants Creek | 0.4 | 331 | 575 | 648 | 851 |
| | Approximately 0.7 mile upstream of the confluence with Grants Creek | 0.3 | 298 | 524 | 592 | 784 |
| | Approximately 0.9 mile upstream of the confluence with Grants Creek | 0.2 | 251 | 446 | 505 | 670 |
| Pine Ridge Branch | * | * | * | * | * | * |
| Quarry Creek | * | * | * | * | * | * |
| Railroad Branch | * | * | * | * | * | * |
| Riles Creek | At the confluence with Yadkin River | 31.0 | * | * | 6,370 | * |
| | Approximately 0.2 mile upstream of the confluence with Yadkin River | 30.1 | * | * | 6,259 | * |
| | Approximately 1.2 miles downstream of Stokes Ferry Road (SR 1004) | 28.0 | * | * | 5,975 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Riles Creek | Approximately 60 feet upstream of the Stanly / Rowan County boundary | 26.5 | * | * | 5,774 | * |
| Rocky Branch | * | * | * | * | * | * |
| Rocky Branch Tributary 1 | At the confluence with Rocky Branch | 0.3 | * | * | 607 | * |
| | Approximately 60 feet downstream of Private Road | 0.3 | * | * | 590 | * |
| | Approximately 283 feet upstream of Private Road | 0.2 | * | * | 549 | * |
| | Approximately 0.2 mile upstream of Private Road | 0.1 | * | * | 430 | * |
| | Approximately 0.3 mile upstream of Private Road | 0.1 | * | * | 418 | * |
| Rowan Avenue Park Stream | * | * | * | * | * | * |
| Second Creek | At the confluence with Yadkin River | 54.0 | * | * | 9,014 | * |
| | Approximately 0.4 mile upstream of Bringle Ferry Road (SR 1002) | 44.3 | * | * | 7,963 | * |
| | Approximately 0.7 mile upstream of Bringle Ferry Road (SR 1002) | 42.6 | * | * | 7,767 | * |
| | Approximately 1.3 miles downstream of Stokes Ferry Road (SR 1004) | 40.5 | * | * | 7,531 | * |
| | Approximately 460 feet downstream of Stokes Ferry Road (SR 1004) | 36.7 | * | * | 7,080 | * |
| | Approximately 320 feet upstream of Stokes Ferry Road (SR 1004) | 34.2 | * | * | 6,771 | * |
| | Approximately 0.8 mile downstream of St. Peters Church Road (SR 2370) | 30.6 | * | * | 6,315 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Second Creek | Approximately 137 feet downstream of St. Peters Church Road (SR 2370) | 25.2 | * | * | 5,599 | * |
| | At St. Peters Church Road (SR 2370) | 24.2 | * | * | 5,459 | * |
| | Approximately 0.2 mile downstream of US Highway 52 | 21.6 | * | * | 5,090 | * |
| | Approximately 0.3 mile upstream of Emanuel Church Road | 15.5 | * | * | 4,131 | * |
| | At the confluence of Second Creek Tributary 2 | 15.2 | * | * | 4,088 | * |
| | At the confluence of Bost Branch | 14.6 | * | * | 3,978 | * |
| | At the confluence of Fisher Branch | 9.3 | * | * | 2,993 | * |
| | Approximately 850 feet upstream of Lower Stone Church Road | 7.5 | * | * | 2,633 | * |
| | Approximately 0.8 mile upstream of Lower Stone Church Road | 6.8 | * | * | 2,460 | * |
| | Approximately 1.2 miles upstream of Lower Stone Church Road | 5.5 | * | * | 2,154 | * |
| | Approximately 0.5 mile downstream of Organ Church Road (SR 1006) | 5.2 | * | * | 2,087 | * |
| | Approximately 210 feet downstream of Organ Church Road (SR 1006) | 3.1 | * | * | 1,517 | * |
| | Approximately 390 feet upstream of Shive Road (SR 2564) | 2.5 | * | * | 1,307 | * |
| | Approximately 0.3 mile upstream of Shive Road (SR 2564) | 2.2 | * | * | 1,209 | * |
| | Approximately 0.3 mile downstream of the confluence of Second Creek Tributary 3 | 2.1 | * | * | 1,174 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Second Creek | At the confluence of Second Creek Tributary 3 | 0.3 | * | * | 358 | * |
| | Approximately 770 feet upstream of the confluence of Second Creek Tributary 3 | 0.2 | * | * | 283 | * |
| | Approximately 0.4 mile upstream of the confluence of Second Creek Tributary 3 | 0.1 | * | * | 158 | * |
| Second Creek Tributary 1 | At the confluence with Second Creek | 5.0 | * | * | 2,030 | * |
| | Approximately 0.4 mile upstream of Linker Road (SR 2368) | 4.2 | * | * | 1,931 | * |
| | At the confluence of Peeler Branch | 2.6 | * | * | 1,931 | * |
| Second Creek Tributary 2 | At the confluence with Second Creek | 0.2 | * | * | 396 | * |
| | Approximately 0.4 mile downstream of Miller Street | 0.1 | * | * | 293 | * |
| Second Creek Tributary 3 | At the confluence with Second Creek | 1.6 | * | * | 1,002 | * |
| | Approximately 220 feet upstream of Shive Road (SR 2564) | 1.5 | * | * | 955 | * |
| | Approximately 0.4 mile upstream of Shive Road (SR 2564) | 1.3 | * | * | 859 | * |
| | Approximately 0.5 mile upstream of Shive Road (SR 2564) | 0.9 | * | * | 719 | * |
| | Approximately 0.4 mile downstream of Winding Brook Lane | 0.6 | * | * | 542 | * |
| | Approximately 1,257 feet downstream of Winding Brook Lane | 0.5 | * | * | 480 | * |
| | Approximately 550 feet downstream of Winding Brook Lane | 0.4 | * | * | 415 | * |
| Sides Branch | * | * | * | * | * | * |
| Sills Creek | At the confluence with Back Creek | 18.0 | * | * | 4,537 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area (*square miles*) | Discharges (*cfs*) | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Sills Creek | Approximately 1.3 miles upstream of the confluence with Back Creek | 17.0 | * | * | 4,370 | * |
| | Approximately 2.2 miles upstream of the confluence with Back Creek | 16.1 | * | * | 4,224 | * |
| | Approximately 0.4 mile downstream of the confluence of Sills Creek Tributary 1 | 15.1 | * | * | 4,070 | * |
| | At the confluence of Sills Creek Tributary 1 | 13.7 | * | * | 3,815 | * |
| | Approximately 1.3 miles upstream of the confluence of Sills Creek Tributary 1 | 12.6 | * | * | 3,629 | * |
| | Approximately 0.9 mile downstream of Mooresville Road / NC Highway 150 | 11.7 | * | * | 3,465 | * |
| | Approximately 0.4 mile downstream of Mooresville Road / NC Highway 150 | 9.7 | * | * | 3,076 | * |
| | Approximately 0.2 mile downstream of Mooresville Road / NC Highway 150 | 8.9 | * | * | 2,923 | * |
| | Approximately 0.2 mile upstream of Mooresville Road / NC Highway 150 | 7.7 | * | * | 2,658 | * |
| | Approximately 1.0 mile upstream of Mooresville Road / NC Highway 150 | 6.9 | * | * | 2,487 | * |
| | Approximately 1.2 miles upstream of Mooresville Road / NC Highway 150 | 4.2 | * | * | 1,819 | * |
| | Approximately 1.5 miles upstream of Mooresville Road / NC Highway 150 | 2.4 | * | * | 1,299 | * |
| | Approximately 2.5 miles upstream of Mooresville Road / NC Highway 150 | 1.4 | * | * | 923 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Sills Creek | Approximately 3.1 miles upstream of Mooresville Road / NC Highway 150 | 0.6 | * | * | 537 | * |
| | Approximately 0.1 mile downstream of the Iredell/Rowan County boundary | 0.3 | * | * | 346 | * |
| Sills Creek Tributary 1 | At the confluence with Sills creek | 1.3 | * | * | 885 | * |
| | Approximately 0.5 mile upstream of the confluence with Sills Creek | 0.8 | * | * | 666 | * |
| Sixth Street Branch | * | * | * | * | * | * |
| Sloans Creek | At the confluence with North Second Creek | 20.7 | * | * | 4,953 | * |
| | Approximately 0.6 mile downstream of the confluence of Kerr Creek | 19.7 | * | * | 4,798 | * |
| | Approximately 0.3 mile downstream of the confluence of Kerr Creek | 17.4 | * | * | 4,446 | * |
| | At the confluence of Kerr Creek | 5.2 | * | * | 2,091 | * |
| | Approximately 0.2 mile downstream of State Highway 150 / Mooresville Road | 4.5 | * | * | 1,913 | * |
| | Approximately 0.2 mile upstream of State Highway 150 / Mooresville Road | 3.4 | * | * | 1,591 | * |
| | Approximately 1.3 miles upstream of State Highway 150 / Mooresville Road | 2.5 | * | * | 1,305 | * |
| | Approximately 1.8 miles upstream of State Highway 150 / Mooresville Road | 1.8 | * | * | 1,071 | * |
| | Approximately 2.1 miles upstream of State Highway 150 / Mooresville Road | 1.5 | * | * | 960 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area (*square miles*) | Discharges (*cfs*) | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Sloans Creek | Approximately 3.1 miles upstream of State Highway 150 / Mooresville Road | 0.8 | * | * | 644 | * |
| | Approximately 3.3 miles upstream of State Highway 150 / Mooresville Road | 0.5 | * | * | 496 | * |
| South Yadkin River | At the confluence with Yadkin River | 906.7 | * | * | 52,548 | * |
| | At the confluence of North Second Creek | 762.6 | * | * | 41,707 | * |
| | Approximately 0.8 mile downstream of the confluence of Fourth Creek | 758.9 | * | * | 41,336 | * |
| | Approximately 0.3 mile downstream of the confluence of South Yadkin River Tributary 1 | 568.5 | * | * | 24,015 | * |
| | Approximately 85 feet upstream of the confluence of South Yadkin River Tributary 1 | 568.1 | * | * | 23,987 | * |
| | Approximately 96 feet upstream of the confluence of South Yadkin River Tributary 2 | 564.7 | * | * | 23,708 | * |
| | Approximately 0.9 mile downstream of State Highway 801 | 564.3 | * | * | 23,680 | * |
| | Approximately 0.3 mile downstream of State Highway 801 | 563.8 | * | * | 23,636 | * |
| | Approximately 291 feet upstream of State Highway 801 | 563.4 | * | * | 23,601 | * |
| | Approximately 0.7 mile upstream of State Highway 801 | 560.4 | * | * | 23,588 | * |
| | Approximately 0.7 mile downstream of railroad | 559.9 | * | * | 23,585 | * |
| | Approximately 0.4 mile downstream of railroad | 559.4 | * | * | 23,583 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| South Yadkin River | Approximately 0.7 mile upstream of railroad | 558.9 | * | * | 23,581 | * |
| | Approximately 248 feet upstream of the confluence of Bear Creek | 529.1 | * | * | 23,415 | * |
| | Approximately 0.3 mile upstream of the confluence of Bear Creek | 523.0 | * | * | 23,373 | * |
| | At the confluence of Hunting Creek | 316.8 | * | * | 18,531 | * |
| | Approximately 1.7 miles downstream of Powell Road (SR 1983) | 316.5 | * | * | 18,506 | * |
| | Approximately 1.6 miles downstream of Powell Road (SR 1983) | 316.1 | * | * | 18,477 | * |
| | Approximately 0.8 mile downstream of Powell Road (SR 1983) | 315.9 | * | * | 18,462 | * |
| | Approximately 182 feet upstream of Powell Road (SR 1983) | 314.9 | * | * | 18,393 | * |
| | Approximately 48 feet upstream of the confluence of Little Creek (North) | 307.4 | * | * | 17,860 | * |
| | Approximately 0.3 mile upstream of the confluence of Little Creek (North) | 307.1 | * | * | 17,836 | * |
| | Approximately 0.3 mile downstream of Foster Road (SR 1972) | 305.5 | * | * | 17,729 | * |
| | Approximately 343 feet downstream of Foster Road (SR 1972) | 305.2 | * | * | 17,703 | * |
| | Approximately 0.5 mile upstream of Foster Road (SR 1972) | 304.7 | * | * | 17,702 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| South Yadkin River | Approximately 0.7 mile upstream of Foster Road (SR 1972) | 302.9 | * | * | 17,698 | * |
| | Approximately 1.1 miles upstream of Foster Road (SR 1972) | 302.7 | * | * | 17,698 | * |
| | Approximately 1.6 miles upstream of Foster Road (SR 1972) | 302.2 | * | * | 17,697 | * |
| | Approximately 267 feet downstream of the confluence of South Yadkin River Tributary 3 | 301.8 | * | * | 17,696 | * |
| | At the confluence of South Yadkin River Tributary 3 | 301.5 | * | * | 17,695 | * |
| | Approximately 0.6 mile upstream of the confluence of South Yadkin River Tributary 3 | 300.7 | * | * | 17,693 | * |
| | At the confluence of South Yadkin River Tributary 4 | 299.2 | * | * | 17,688 | * |
| | Approximately 0.3 mile downstream of the confluence of South Yadkin River Tributary 5 | 299.0 | * | * | 17,688 | * |
| | At the confluence of South Yadkin River Tributary 5 | 298.4 | * | * | 17,686 | * |
| | Approximately 0.44 mile downstream of the confluence of Bell Branch | 297.3 | * | * | 17,682 | * |
| Southern Railroad Branch | * | * | * | * | * | * |
| Southside Tributary | * | * | * | * | * | * |
| Spring Hill Branch | * | * | * | * | * | * |
| Swearington Branch | * | * | * | * | * | * |
| Tar Branch | * | * | * | * | * | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area (*square miles*) | Discharges (*cfs*) | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Tar Branch Tributary | * | * | * | * | * | * |
| Third Creek | At the confluence with Fourth Creek | 190.0 | * | * | 19,315 | * |
| | Approximately 4.8 miles upstream of the confluence with Fourth Creek | 100.5 | * | * | 12,323 | * |
| | Approximately 7.3 miles upstream of the confluence with Fourth Creek | 94.9 | * | * | 11,809 | * |
| | Approximately 3.7 miles downstream of U.S. Highway 70 / Statesville Boulevard | 89.6 | * | * | 11,300 | * |
| | Approximately 2.1 miles downstream of U.S. Highway 70 / Statesville Boulevard | 88.5 | * | * | 11,190 | * |
| | Approximately 0.8 mile downstream of U.S. Highway 70 / Statesville Boulevard | 86.1 | * | * | 10,953 | * |
| | Approximately 1.7 miles upstream of U.S. Highway 70 / Statesville Boulevard | 81.8 | * | * | 10,521 | * |
| | Approximately 0.8 mile downstream of the Iredell \ Rowan County boundary | 77.4 | * | * | 10,067 | * |
| Third Street Creek | * | * | * | * | * | * |
| Thomas Street Creek | * | * | * | * | * | * |
| Town Branch | * | * | * | * | * | * |
| Town Creek | Approximately 1,500 feet upstream of the confluence with Crane Creek/High Rock Lake | 18.4 | 3,200 | 4,720 | 5,570 | 12,400 |
| | At Interstate 85 | 17.0 | 2,920 | 4,220 | 4,960 | 11,700 |
| | At Andrews Street | 16.3 | 2,820 | 4,050 | 4,760 | 11,100 |
| | At Correll Street | 15.1 | 2,640 | 3,850 | 4,510 | 10,300 |
| | Approximately 620 feet downstream of Bringle Ferry Road | 14.1 | 3,433[1] | 4,997[1] | 5,476[1] | 6,762 |
| | The confluence of Park Avenue Branch | 13.7 | 3,288 | 4,820 | 5,294 | 6,568 |
| | At East Innes Street | 12.8 | 2,837 | 4,276 | 4,735 | 5,988 |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area (*square miles*) | Discharges (*cfs*) | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Town Creek | At the confluence of Thomas Street Creek | 12.2 | 2,531 | 3,896 | 4,342 | 5,571 |
| | At the confluence of Hopkins Street Branch | 11.7 | 2,358 | 3,677 | 4,114 | 5,325 |
| | At the confluence of Vance Avenue Branch | 11.6 | 2,289 | 3,589 | 4,022 | 5,227 |
| | At the confluence of Concord Road Creek | 10.9 | 1,991 | 3,206 | 3,621 | 5,375 |
| | At the confluence of Town Creek Tributary 2 | 8.4 | 1,564 | 2,593 | 2,950 | 4,403 |
| | Approximately 0.2 mile upstream of South Jake Alexander Boulevard | 8.2 | 1,345 | 2,291 | 2,776 | 4,144 |
| | At Henderson Grove Church Road | 7.4 | 1,690 | 2,410 | 2,770 | 5,350[1] |
| | At Peach Orchard Road (SR 2539) | 6.2 | 1,660 | 2,380 | 2,790 | 5,200 |
| | At Peeler Road (SR 2538) | 5.0 | 1,610 | 2,270 | 2,600 | 5,100 |
| | At Webb Road (SR 1500) | 3.3 | 1,620[1] | 2,250 | 2,560 | 5,000 |
| | Approximately 0.6 mile downstream of Interstate 85 | 1.7 | 1,500 | 2,180 | 2,400 | 4,600 |
| Town Creek Tributary | * | * | * | * | * | * |
| Town Creek Tributary 1 | At the confluence with Town Creek | 0.2 | 184 | 340 | 389 | 528 |
| | Approximately 0.2 mile upstream of the confluence with Town Creek | 0.1 | 172 | 312 | 354 | 471 |
| | Approximately 0.5 mile upstream of the confluence with Town Creek | 0.1 | 112 | 210 | 238 | 320 |
| Trexler Creek | At the confluence with Crane Creek | 1.8 | 1,182 | 1,797 | 1,964 | 2,410 |
| | Approximately 0.1 mile upstream of the confluence Crane Creek | 1.3 | 961 | 1,480 | 1,620 | 1,994 |
| | Approximately 0.5 mile upstream of the confluence Crane Creek | 1.1 | 913 | 1,409 | 1,543 | 1,900 |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area (*square miles*) | Discharges (*cfs*) | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Trexler Creek | At U.S. Highway 52 (North Salisbury Avenue) | 1.1 | 832 | 1,302 | 1,431 | 1,778 |
| | Approximately 0.1 mile upstream of U.S. Highway 52 (North Salisbury Avenue) | 0.5 | 686 | 1,038 | 1,121 | 1,339 |
| | Approximately 0.3 mile upstream of U.S. Highway 52 (North Salisbury Avenue) | 0.4 | 603 | 927 | 1,005 | 1,211 |
| | Approximately 0.4 mile upstream of Highway 52 (North Salisbury Avenue) | 0.4 | 549 | 854 | 929 | 1,128 |
| | Approximately 1,579 feet upstream of Railroad Street | 0.3 | 415 | 678 | 748 | 938 |
| | Approximately 0.5 mile upstream of Railroad Street | 0.3 | 319 | 545 | 609 | 787 |
| | Approximately 0.6 mile upstream of Railroad Street | 0.2 | 294 | 506 | 566 | 734 |
| | Approximately 0.8 mile upstream of Railroad Street | 0.2 | 285 | 486 | 542 | 696 |
| | Approximately 0.9 mile upstream of Railroad Street | 0.1 | 158 | 286 | 323 | 426 |
| | Approximately 1.3 miles upstream of Railroad Street | 0.1 | 81 | 160 | 185 | 258 |
| Unnamed Stream 1 | At the confluence with Fourth Creek | 3.9 | * | * | 1,738 | * |
| | Approximately 0.3 mile upstream of the confluence with Fourth Creek | 3.2 | * | * | 1,529 | * |
| | Approximately 0.7 mile upstream of the confluence with Fourth Creek | 2.8 | * | * | 1,404 | * |
| | Approximately 1.3 miles upstream of the confluence with Fourth Creek | 1.7 | * | * | 1,047 | * |
| Unnamed Stream 2 | At the confluence with Fourth Creek | 3.0 | * | * | 1,479 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Unnamed Stream 2 | Approximately 0.5 mile upstream of the confluence with Fourth Creek | 2.7 | * | * | 1,386 | * |
| Vance Avenue Branch | * | * | * | * | * | * |
| Walnut Street Branch | * | * | * | * | * | * |
| Walton Branch | * | * | * | * | * | * |
| Wildlife Tributary | At the confluence with Draft Branch | 2.8 | 680 | 1,260 | 1,540 | 2,200 |
| | At Harrison Road | 2.5 | 650 | 1,200 | 1,460 | 2,100 |
| | Approximately 0.6 mile upstream of Harrison Road | 1.7 | 540 | 1,000 | 1,250 | 1,800 |
| Wiley Avenue Branch | * | * | * | * | * | * |
| Withrow Creek | At the confluence with North Second Creek | 49.9 | * | * | 8,575 | * |
| | Approximately 1.3 miles upstream of the confluence with North Second Creek | 47.1 | * | * | 8,276 | * |
| | At State Highway 801 / Barber Junction Road | 44.6 | * | * | 7,992 | * |
| | Approximately 0.4 mile downstream of the confluence of Beaverdam Creek | 42.6 | * | * | 7,773 | * |
| | At the confluence of Beaverdam Creek (West) | 32.8 | * | * | 6,604 | * |
| | Approximately 1.2 miles upstream of the confluence of Beaverdam Creek (West) | 31.2 | * | * | 6,396 | * |
| | Approximately 2.2 miles upstream of the confluence of Beaverdam Creek (West) | 29.0 | * | * | 6,115 | * |
| | Approximately 3.3 miles upstream of the confluence of Beaverdam Creek (West) | 27.4 | * | * | 5,900 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Withrow Creek | Approximately 1.6 miles downstream of the confluence of Woodleaf Branch (West) | 25.7 | * | * | 5,665 | * |
| | Approximately 0.6 miles downstream of the confluence of Woodleaf Branch (West) | 24.2 | * | * | 5,454 | * |
| | At the confluence of Woodleaf Branch (West) | 21.4 | * | * | 5,057 | * |
| | Approximately 0.2 mile downstream of the Iredell/Rowan County boundary | 20.3 | * | * | 4,887 | * |
| Woodleaf Branch (East) | * | * | * | * | * | * |
| Woodleaf Branch (West) | At the confluence with Withrow Creek | 2.0 | * | * | 1,130 | * |
| | Approximately 0.7 mile upstream of the confluence with Withrow Creek | 1.4 | * | * | 935 | * |
| | Approximately 1.2 miles upstream of the confluence with Withrow Creek | 1.1 | * | * | 811 | * |
| | Approximately 1.3 miles upstream of the confluence with Withrow Creek | 0.9 | * | * | 687 | * |
| Wright Branch | * | * | * | * | * | * |
| Yadkin River | Approximately 1.1 miles downstream of Falls Dam | 4,168.6 | * | * | 162,800 | * |
| | Approximately 400 feet downstream of Bringle Ferry Road (SR 1002) | 3,979.4 | * | * | 157,500 | * |
| | Approximately 2.9 miles upstream of Bringle Ferry Road (SR 1002) | 3,692.9 | * | * | 149,300 | * |
| | Approximately 5.7 miles upstream of Bringle Ferry Road (SR 1002) | 3,546.5 | * | * | 145,100 | * |

## Table 8—Summary of Discharges

| Flooding Source | Location | Drainage Area *(square miles)* | Discharges *(cfs)* | | | |
|---|---|---|---|---|---|---|
| | | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Yadkin River | Approximately 38 feet downstream of railroad | 3,451.0 | * | * | 142,300 | * |
| | Approximately 2.1 miles upstream of railroad | 3,377.5 | * | * | 139,100 | * |
| | Approximately 4.9 miles upstream of railroad | 2,455.7 | * | * | 99,500 | * |

*Data Not Available

[1] Discharges increase due to inconsistencies between new and previously effective studies. The lower discharge is a result from an older study that is based on less accurate data.

[2] Discharges increased by urbanization in the watershed

The stillwater elevations have been determined for the 1% annual chance flood for the flooding sources studied by detailed methods and are summarized in Table 9, "Summary of Stillwater Elevations."

## Table 9—Summary of Stillwater Elevations

| Flooding Source | FIRM Panel Number(s) | Elevations *(feet NAVD)* | | | |
|---|---|---|---|---|---|
| | | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Crane Creek (High Rock Lake) | 5699, 5790, 6609, 6619, 6700 | * | * | 625.7 | * |

*Data not available

Table 10, "Gage Information," lists the stream gages located in Rowan County, including the drainage area of the flooding source at the gage and the period of record available at the time of the publication of this FIS Report.

## Table 10—Gage Information

| Gage Number or Identifier | Flooding Source | Site Name | Drainage Area *(square miles)* | Period of Record | |
|---|---|---|---|---|---|
| | | | | From | To |
| 02122720 | Beaverdam Creek Tributary | Denton, NC | 2.9 | 1954 | 1971 |
| 02122560 | Cabin Creek | Jackson Hill, NC | 13.7 | 1954 | 1971 |
| 02120820 | Deal Branch | Salisbury, NC | 3.9 | 1954 | 1971 |

**Table 10—Gage Information**

| Gage Number or Identifier | Flooding Source | Site Name | Drainage Area *(square miles)* | Period of Record | |
|---|---|---|---|---|---|
| | | | | From | To |
| 02120780 | Second Creek | Barber, NC | 117.9 | 1980 | Present |
| 02119000 | South Yadkin River | Cooleemee, NC | 563.65 | 1929 | 1965 |
| 0211800 | South Yadkin River | Mocksville, NC | 305.2 | 1930 | 2005 |
| 02119400 | Third Creek | Stony Point, NC | 4.77 | 1957 | 1969 |
| 02120500 | Third Creek | Cleveland, NC | 88.5 | 1941 | 1971 |

## 5.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the flood elevations for the selected recurrence intervals. Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles. For stream segments for which BFEs were computed, selected cross-section locations are also shown on the FIRM. Flood profiles were developed showing computed water-surface elevations for floods of the selected recurrence intervals.

Users should be aware that flood elevations shown on the FIRM represent rounded whole-foot elevations and may not exactly reflect the elevations shown on the Flood Profiles or in the Floodway Data tables in the FIS Report. For construction and/or floodplain management purposes, users are encouraged to use the flood elevation data presented in the FIS in conjunction with the data shown on the FIRM.

The hydraulic analyses for this FIS were based on unobstructed flow. The flood elevations shown on the Flood Profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

### Pre-Countywide Analyses

Each jurisdiction within Rowan County, with the exceptions of the Town of Cleveland, had previously printed FIS Reports describing each community's hydraulic analyses. Those analyses have been compiled and are summarized below. These analyses remain valid for those flooding sources listed in Table 4, "Flooding Sources Studied by Detailed Methods: Redelineated."

Cross section data for streams were obtained from field surveys for the Town of China Grove, the Town of East Spencer, the Town of Faith, the Town of Granite Quarry, the Town of Landis, the Town of Rockwell, the Unincorporated Areas of Rowan County, and the Town of Spencer, as were elevation data and structural geometry on bridges and culverts. Water-surface profiles for the 10% and 1% annual chance floods in the Town of China Grove, the Town of Faith, the Town of Granite Quarry, the Town of Landis, the Town of Rockwell, the Unincorporated Areas of Rowan County, and the Town of Spencer, as well as the 2% and 0.2% annual chance floods in the Unincorporated Areas of Rowan County were developed using the U.S. Army Corps of Engineers HEC-2 computer program (U.S. Army Corps of Engineers, October 1973). The starting water-surface elevations were determined using the slope area method.

In the Town of East Spencer, water-surface profiles for the 10% and 1% annual chance floods were developed for the modified detailed studied streams, Ice Plant Creek, East Spencer High Creek, Railroad Branch, and Jackson Branch, using the U.S. Army Corps of Engineers HEC-2 computer program. The Town Creek water-surface profiles for the 10%, 2%, and 1% annual chance floods were adopted from unpublished data received from the North Carolina Soil and Water Conservation Commission and incorporated with the 0.2% annual chance flood profile developed jointly by the U.S. Army Corps of Engineers and Moore, Gardner & Associates as the bas datum (U.S. Department of Natural Resources and Community Development, unpublished, and U.S. Army Corps of Engineers, June 1973).

In the Town of East Spencer, the slope method stated in the U.S. Army Corps of Engineers HEC-2 computer program was using for calculating the starting water-surface elevations for East Spencer High Creek and Jackson Branch (U.S. Army Corps of Engineers, October 1973). This was also the case for Quarry Creek and Park Creek in the Town of Faith, for Sides Branch in the Town of Rockwell, and for all studied streams in the Unincorporated Areas of Rowan County.

Additionally in the Town of Landis, the starting water-surface elevations for Town Branch, Grants Creek, and Beaver Creek were established by adopting the water-surface elevations at the corporate limits which were shown in the Flood Insurance Study for the unincorporated areas of Rowan County. This was also the case for Cemetery Creek in the Town of Faith, for Ice Plant Creek and Railroad Branch in the Town of East Spencer, and for Peeler Branch and Bost Branch in the Town of Rockwell.

In the City of Salisbury, the Town of Spencer, and the Unincorporated Areas of Rowan County, the water-surface profiles for Crane Creek for the 10%, 2%, 1%, and 0.2% annual chance floods were adopted from the U.S. Army Corps of Engineers data (U.S. Army Corps of Engineers, 1976). In the City of Salisbury and the Unincorporated Areas of Rowan County, the Town and Grants Creek water-surface profiles for the 10%, 2%, and 1% annual chance floods were adopted from the unpublished data received from the North Carolina Soil and Water Conservation Commission and incorporated with the 0.2% annual chance profile developed the U.S. Army Corps of Engineers as the base datum (North Carolina Department of Natural Resources and Community Development, unpublished, and U.S. Army Corps of Engineers, June 1973). Starting elevations in the City of Salisbury were computed by the slope-area method, using energy gradients for Town Creek, Crane Creek, and Grants Creek.

### Revised Analyses for Countywide FIS

For the streams studied by detailed methods, water-surface elevations of floods of the selected recurrence intervals were computed through use of the Army Corps of Engineers' HEC-RAS step-backwater computer program version 3.0 (U.S. Army Corps of Engineers, 2001). The hydraulic analyses were based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail. The computer models were calibrated using historic high water data collected during field investigations.

The cross section geometries were obtained from a combination of digital elevation data obtained by Light Detection and Ranging (LIDAR) and field surveys. All bridges, dams, and culverts were field surveyed to obtain elevation data and structural geometry. Natural floodplain cross sections were surveyed approximately every 3000 - 4000 feet along the detail study reaches to obtain the

channel geometry between bridges and culverts. Overbank cross section data for the backwater analyses were obtained from recently flown LIDAR data.

Channel roughness factors (Manning's "n") used in the hydraulic computations were made in the field by an engineer where stream access was possible, with orthophotos used to supplement areas that could not be accessed. The channel and overbank "n" values for all of the streams studied by detailed methods are shown in Table 11, "Roughness Coefficients."

**Table 11—Roughness Coefficients**

| Stream | Channel "n" | Overbank "n" |
|---|---|---|
| Back Creek | 0.042 - 0.048 | 0.050 - 0.130 |
| Back Creek Tributary 1 | 0.050 | 0.080 - 0.150 |
| Baker Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Beaver Creek | 0.025 - 0.070 | 0.025 - 0.100 |
| Beaver Creek Tributary | 0.025 - 0.070 | 0.025 - 0.100 |
| Beaverdam Creek (East) | 0.042 - 0.052 | 0.080 - 0.140 |
| Beaverdam Creek (West) | 0.035 - 0.040 | 0.060 - 0.100 |
| Bell Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Bost Branch | 0.050 | 0.100 - 0.150 |
| Bostian Heights Branch | 0.050 | 0.080 - 0.140 |
| Byrd Road Tributary | 0.025 - 0.070 | 0.025 - 0.100 |
| Cedar Creek | 0.040 | 0.120 - 0.130 |
| Cemetery Creek | 0.025 - 0.070 | 0.025 - 0.100 |
| Church Creek | 0.035 - 0.050 | 0.080 - 0.150 |
| Church Creek Tributary 1 | 0.050 | 0.080 - 0.130 |
| Church Creek Tributary 1A | 0.045 | 0.080 - 0.130 |
| Church Creek Tributary 2 | 0.045 | 0.090 - 0.120 |
| Coddle Creek | 0.040 - 0.050 | 0.080 - 0.150 |
| Cold Water Creek | 0.025 - 0.070 | 0.025 - 0.100 |
| Cold Water Creek Tributary | 0.025 - 0.070 | 0.025 - 0.100 |
| Cold Water Creek Tributary 1 | 0.050 | 0.080 - 0.140 |
| Concord Road Creek | 0.025 - 0.070 | 0.025 - 0.100 |
| Correll Creek | 0.025 - 0.040 | 0.025 - 0.060 |
| Crane Creek | 0.040 - 0.045 | 0.045 - 0.130 |
| Crane Creek Tributary 1 | 0.040 - 0.045 | 0.080 - 0.120 |
| Crane Creek Tributary 2 | 0.045 | 0.090 - 0.130 |
| Draft Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Draft Branch Tributary | 0.025 - 0.070 | 0.025 - 0.100 |
| Dutch Buffalo Creek | 0.035 - 0.045 | 0.080 - 0.140 |
| Dutch Buffalo Creek Tributary | 0.025 - 0.070 | 0.025 - 0.100 |
| Dutch Buffalo Creek Tributary 1 | 0.045 | 0.080 - 0.150 |
| East Centerview Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| East Fork Creek | 0.035 - 0.050 | 0.050 - 0.140 |

## Table 11—Roughness Coefficients

| Stream | Channel "n" | Overbank "n" |
|---|---|---|
| East Spencer High Creek | 0.025 - 0.060 | 0.025 - 0.085 |
| Faith Road Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Fisher Branch | 0.050 | 0.100 - 0.160 |
| Five Forks Tributary | 0.025 - 0.070 | 0.025 - 0.010 |
| Flat Creek | 0.040 - 0.045 | 0.080 - 0.130 |
| Flat Rock Branch | 0.035 - 0.050 | 0.100 - 0.150 |
| Fourth Creek | 0.040 - 0.052 | 0.080 - 0.150 |
| Fourth Creek Tributary 4 | 0.045 | 0.080 - 0.140 |
| Fourth Creek Tributary 5 | 0.048 | 0.100 - 0.130 |
| Grants Creek | 0.035 - 0.045 | 0.035 - 0.150 |
| Grants Creek Tributary 2 | 0.045 | 0.090 |
| Grants Creek Tributary 3 | 0.050 | 0.100 - 0.150 |
| Grants Creek Tributary 4 | 0.050 | 0.090 - 0.150 |
| Gravel Pit Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Henderson Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Henderson Branch Tributary | 0.025 - 0.070 | 0.025 - 0.100 |
| Hopkins Street Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Ice Plant Creek | 0.025 - 0.070 | 0.025 - 0.100 |
| Innis Street Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Irish Buffalo Creek | 0.050 | 0.080 - 0.140 |
| Irish Buffalo Creek Tributary 4 | 0.035 - 0.050 | 0.080 - 0.140 |
| Irish Buffalo Creek Tributary 5 | 0.035 - 0.050 | 0.080 - 0.140 |
| Jackson Branch | 0.025 - 0.060 | 0.025 - 0.085 |
| Julian Tributary | 0.025 - 0.070 | 0.025 - 0.100 |
| Jump and Run Branch | 0.0450 | 0.090 - 0.130 |
| Kerr Creek | 0.035 - 0.050 | 0.070 - 0.120 |
| Klutz Branch | 0.050 | 0.080 - 0.140 |
| Lake Wright Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Legion Park Branch | 0.050 | 0.080 - 0.150 |
| Little Creek | 0.025 - 0.070 | 0.025 - 0.100 |
| Little Creek (South) | 0.045 | 0.080 - 0.140 |
| Lomax Creek | 0.050 | 0.120 - 0.150 |
| Mahaley Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Mahaley Branch Tributary | 0.025 - 0.065 | 0.025 - 0.100 |
| Main Street Tributary | 0.025 - 0.070 | 0.025 - 0.100 |
| Maple Avenue Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Mill Creek | 0.040 - 0.050 | 0.080 - 0.140 |
| Mill Creek (into Grants Creek) | 0.025 - 0.040 | 0.025 - 0.060 |
| Moose Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| North Fork Tributary | 0.025 - 0.070 | 0.025 - 0.100 |
| North Second Creek | 0.048 | 0.040 - 0.150 |

## Table 11—Roughness Coefficients

| Stream | Channel "n" | Overbank "n" |
|---|---|---|
| Park Avenue Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Park Creek | 0.040 - 0.048 | 0.080 - 0.130 |
| Park Creek (into Quarry Creek) | 0.025 - 0.070 | 0.025 - 0.100 |
| Peeler Branch | 0.040 - 0.045 | 0.080 - 0.140 |
| Petrea Branch | 0.045 - 0.060 | 0.080 - 0.140 |
| Pine Ridge Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Quarry Creek | 0.025 - 0.070 | 0.025 - 0.100 |
| Railroad Branch | 0.025 - 0.060 | 0.025 - 0.085 |
| Riles Creek | 0.040 - 0.045 | 0.080 - 0.130 |
| Rocky Branch | 0.050 | 0.135 - 0.150 |
| Rocky Branch Tributary 1 | 0.050 | 0.130 - 0.140 |
| Rowan Avenue Park Stream | 0.050 | 0.090 - 0.160 |
| Second Creek | 0.040 | 0.090 - 0.160 |
| Second Creek Tributary 1 | 0.045 | 0.080 - 0.140 |
| Second Creek Tributary 2 | 0.050 | 0.090 - 0.150 |
| Second Creek Tributary 3 | 0.050 | 0.100 - 0.150 |
| Sides Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Sills Creek | 0.048 | 0.048 - 0.140 |
| Sills Creek Tributary 1 | 0.048 - 0.050 | 0.100 - 0.150 |
| Sixth Street Branch | 0.050 | 0.125 - 0.150 |
| Sloans Creek | 0.048 | 0.035 - 0.150 |
| South Yadkin River | 0.040 - 0.055 | 0.110 - 0.200 |
| Southside Tributary | 0.025 - 0.070 | 0.025 - 0.100 |
| Southern Railroad Branch | 0.050 | 0.120 - 0.140 |
| Spring Hill Branch | 0.050 | 0.110 - 0.150 |
| Swearington Branch | 0.025 - 0.035 | 0.025 - 0.055 |
| Tar Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Tar Branch Tributary | 0.025 - 0.070 | 0.025 - 0.100 |
| Third Creek | 0.040 - 0.050 | 0.035 - 0.150 |
| Third Street Creek | 0.025 - 0.065 | 0.025 - 0.100 |
| Thomas Street Creek | 0.025 - 0.065 | 0.025 - 0.100 |
| Town Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Town Creek | 0.035 - 0.055 | 0.060 - 0.160 |
| Town Creek Tributary | 0.025 - 0.070 | 0.025 - 0.100 |
| Town Creek Tributary 1 | 0.035 - 0.050 | 0.070 - 0.150 |
| Trexler Creek | 0.035 - 0.050 | 0.080 - 0.150 |
| Unnamed Stream 1 | 0.045 | 0.050 - 0.130 |
| Unnamed Stream 2 | 0.045 | 0.130 |
| Vance Avenue Branch | 0.025 - 0.065 | 0.025 - 0.100 |
| Walnut Street Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Walton Branch | 0.025 - 0.070 | 0.025 - 0.100 |

**Table 11—Roughness Coefficients**

| Stream | Channel "n" | Overbank "n" |
|---|---|---|
| Wildlife Tributary | 0.025 - 0.070 | 0.025 - 0.100 |
| Withrow Creek | 0.050 | 0.075 - 0.150 |
| Woodleaf Branch (East) | 0.048 | 0.090 - 0.140 |
| Woodleaf Branch (West) | 0.050 | 0.012 - 0.150 |
| Wright Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Wiley Avenue Branch | 0.025 - 0.070 | 0.025 - 0.100 |
| Yadkin River | 0.035 - 0.046 | 0.035 - 0.150 |

For flooding sources studied by limited detailed methods in the county, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this report and the FIRM panels. This method entails developing a HEC-RAS hydraulic model, resulting in the calculation of BFEs and the delineation of the 1% annual chance floodplain (designated as Zone AE). Cross sections for the flooding sources studied by limited detailed methods were obtained using digital elevation data obtained with LIDAR technology developed as part of the North Carolina Statewide Floodplain Mapping Program. The hydraulic model is prepared using this digital elevation data, without surveying bathymetric or structural data. Where bridge or culvert data are readily available, such as from the North Carolina Department of Transportation, these data have been reflected in the hydraulic model. If these structural data are not readily available, field measurements of these structures were made to approximate their geometry in the hydraulic models. In addition, this method does not include field surveys that determine specifics on channel and floodplain characteristics. A limited detailed study is a "buildable" product that can be upgraded to a fully detailed study at a later date by verifying stream channel characteristics, bridge and culvert opening geometry, and by analyzing multiple recurrence intervals.

The results of the HEC-RAS computations are tabulated for all cross sections (Table 12, "Limited Detailed Flood Hazard Data"). Flood Profiles have not been developed for streams studied by limited detailed methods. In addition, floodways for streams studied by limited detailed methods are not delineated on the FIRM. However, the 1% annual chance water-surface elevations, flood discharges, and non-encroachment widths from the limited detailed studies for every modeled cross section are given in Table 12. The non-encroachment widths given at modeled cross sections can be used by communities to enforce floodplain management ordinances that meet the requirement defined in 44 CFR 60.3(c)(10).

Between cross sections for streams studied by limited detailed methods, 1% annual chance water-surface elevations should be calculated by mathematical interpolation using the distance along the stream centerline. Non-encroachment widths and, therefore, the location of a non-encroachment area boundary between cross sections should be determined based on either 1) mathematical interpolation, or 2) the non-encroachment width at the upstream or downstream cross section, whichever is larger. If the width determined by this second method is wider than the Special Flood Hazard Area (SFHA) or the 1% annual chance floodplain delineated on the FIRM for this location along the stream, the non-encroachment area shall be considered to be coincident with the SFHA. A full detailed study incorporating field survey data in the HEC-RAS hydraulic model may be submitted for a Letter of Map Revision (LOMR) request to map a regulatory floodway along a section of a stream in lieu of applying the non-encroachment widths listed in

Table 12. FEMA's current (as of August 2001) map revision structure exempts submittal fees for map revision requests based solely on the submission of more detailed data.

**Table 12—Limited Detailed Flood Hazard Data**

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| BACK CREEK | | | | |
| 000 | 0 | 8,593 | 672.0 | 48 / 127 |
| 008 | 777 | 7,309 | 673.1 | 245 / 85 |
| 015 | 1,515 | 7,309 | 673.4 | 368 / 266 |
| 020 | 2,044 | 7,309 | 673.7 | 457 / 35 |
| 028 | 2,808 | 7,309 | 674.3 | 972 / 239 |
| 035 | 3,500 | 7,309 | 674.5 | 423 / 389 |
| 043 | 4,322 | 7,309 | 677.6 | 35 / 570 |
| 050 | 5,000 | 7,309 | 677.8 | 307 / 311 |
| 057 | 5,738 | 7,309 | 677.8 | 252 / 65 |
| 061 | 6,093 | 7,309 | 679.2 | 55 / 218 |
| 067 | 6,714 | 4,754 | 680.2 | 184 / 62 |
| 074 | 7,388 | 4,754 | 680.7 | 220 / 90 |
| 077 | 7,690 | 4,754 | 680.8 | 116 / 90 |
| 081 | 8,068 | 4,754 | 681.7 | 72 / 120 |
| 088 | 8,758 | 4,754 | 682.7 | 92 / 131 |
| 092 | 9,152 | 4,754 | 683.5 | 296 / 72 |
| 096 | 9,609 | 4,754 | 683.6 | 217 / 343 |
| 104 | 10,419 | 4,754 | 683.7 | 235 / 46 |
| 109 | 10,938 | 4,754 | 684.2 | 173 / 28 |
| 115 | 11,538 | 4,597 | 685.9 | 277 / 71 |
| 120 | 11,958 | 4,597 | 686.3 | 155 / 33 |
| 125 | 12,500 | 4,597 | 687.1 | 327 / 35 |
| 130 | 13,000 | 4,597 | 687.5 | 149 / 303 |
| 135 | 13,500 | 4,597 | 687.9 | 27 / 386 |
| 140 | 14,000 | 4,597 | 688.3 | 167 / 47 |
| 145 | 14,538 | 4,597 | 690.1 | 304 / 46 |
| 150 | 15,000 | 4,597 | 690.5 | 136 / 67 |
| 154 | 15,444 | 4,597 | 691.6 | 59 / 311 |
| 158 | 15,800 | 4,597 | 691.9 | 95 / 388 |
| 166 | 16,600 | 4,438 | 692.2 | 116 / 125 |
| 170 | 17,000 | 4,438 | 694.2 | 238 / 31 |
| 173 | 17,327 | 4,438 | 694.4 | 327 / 29 |
| 180 | 18,000 | 4,438 | 694.8 | 382 / 239 |
| 185 | 18,534 | 4,438 | 695.1 | 347 / 430 |
| 190 | 19,032 | 4,438 | 695.3 | 407 / 80 |
| 195 | 19,462 | 4,438 | 695.6 | 350 / 40 |
| 200 | 19,966 | 4,438 | 696.1 | 261 / 26 |
| 206 | 20,575 | 4,438 | 697.3 | 144 / 206 |
| 210 | 20,999 | 4,287 | 698.3 | 85 / 100 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **BACK CREEK** | | | | |
| | | | | |
| Cross sections shown on Floodway Data Table and Profile for this portion | | | | |
| | | | | |
| 329 | 32,876 | 3,944 | 721.7 | 239 / 105 |
| 335 | 33,500 | 3,944 | 722.5 | 260 / 169 |
| 340 | 34,000 | 3,944 | 723.1 | 305 / 128 |
| 345 | 34,500 | 3,777 | 723.7 | 315 / 198 |
| 350 | 35,037 | 3,777 | 724.4 | 145 / 184 |
| 355 | 35,500 | 3,777 | 725.6 | 140 / 152 |
| 359 | 35,940 | 3,777 | 726.4 | 110 / 161 |
| 363 | 36,311 | 3,777 | 727.1 | 125 / 25 |
| 370 | 37,000 | 3,777 | 730.2 | 250 / 185 |
| 374 | 37,446 | 3,777 | 730.6 | 173 / 171 |
| 380 | 37,953 | 3,777 | 731.1 | 25 / 213 |
| 387 | 38,657 | 3,777 | 731.9 | 25 / 328 |
| 392 | 39,203 | 3,777 | 732.4 | 23 / 168 |
| 398 | 39,752 | 3,504 | 734.0 | 23 / 105 |
| 403 | 40,333 | 3,504 | 736.0 | 183 / 76 |
| 409 | 40,890 | 3,504 | 736.7 | 184 / 23 |
| 414 | 41,372 | 3,504 | 737.7 | 219 / 23 |
| 419 | 41,916 | 3,504 | 738.3 | 123 / 23 |
| 424 | 42,395 | 3,504 | 740.6 | 95 / 23 |
| 429 | 42,906 | 3,411 | 742.0 | 161 / 23 |
| 438 | 43,802 | 3,411 | 744.8 | 187 / 54 |
| 442 | 44,243 | 3,411 | 745.7 | 84 / 83 |
| 448 | 44,779 | 3,411 | 746.9 | 24 / 90 |
| 456 | 45,591 | 3,411 | 749.2 | 24 / 141 |
| 461 | 46,075 | 3,411 | 749.9 | 39 / 71 |
| 470 | 47,024 | 3,293 | 751.9 | 23 / 117 |
| 475 | 47,474 | 3,293 | 753.3 | 23 / 88 |
| 479 | 47,943 | 3,293 | 753.8 | 82 / 22 |
| 485 | 48,500 | 3,164 | 755.4 | 27 / 27 |
| 490 | 49,041 | 3,164 | 757.2 | 27 / 27 |
| 497 | 49,680 | 3,164 | 759.0 | 30 / 57 |
| 503 | 50,327 | 2,946 | 760.2 | 21 / 109 |
| **BACK CREEK TRIBUTARY 1** | | | | |
| 002 | 178 | 1,019 | 759.2[4] | 70 / 60 |
| 005 | 459 | 1,019 | 759.6 | 289 / 25 |
| 009 | 918 | 1,019 | 762.1 | 196 / 10 |
| **BEAVERDAM CREEK (EAST)** | | | | |
| 015 | 1,483 | 2,176 | 655.3[4] | 68 / 90 |
| 025 | 2,451 | 2,176 | 655.3[4] | 38 / 138 |
| 029 | 2,860 | 1,633 | 655.3[4] | 77 / 225 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **BEAVERDAM CREEK (EAST)** | | | | |
| 034 | 3,386 | 1,633 | 655.3[4] | 147 / 17 |
| 040 | 4,042 | 1,633 | 655.3[4] | 12 / 282 |
| 047 | 4,685 | 1,633 | 656.4 | 136 / 24 |
| 051 | 5,116 | 1,633 | 658.4 | 17 / 214 |
| 056 | 5,626 | 1,633 | 659.6 | 17 / 168 |
| 061 | 6,121 | 1,633 | 661.3 | 17 / 188 |
| 066 | 6,646 | 1,633 | 663.0 | 17 / 231 |
| 071 | 7,096 | 1,633 | 664.2 | 12 / 218 |
| 076 | 7,645 | 1,633 | 665.8 | 17 / 145 |
| 085 | 8,476 | 1,457 | 668.6 | 64 / 85 |
| 092 | 9,161 | 1,457 | 669.7 | 39 / 36 |
| 096 | 9,555 | 1,457 | 671.7 | 113 / 29 |
| 100 | 9,986 | 1,457 | 672.0 | 16 / 137 |
| 105 | 10,472 | 1,457 | 672.7 | 16 / 200 |
| 111 | 11,107 | 1,457 | 674.1 | 83 / 72 |
| 116 | 11,583 | 1,176 | 676.4 | 34 / 64 |
| 119 | 11,888 | 1,176 | 678.2 | 50 / 14 |
| 124 | 12,357 | 1,176 | 679.6 | 35 / 26 |
| 129 | 12,902 | 1,176 | 682.8 | 55 / 22 |
| 134 | 13,388 | 1,176 | 685.6 | 32 / 12 |
| 138 | 13,822 | 1,176 | 690.6 | 14 / 25 |
| 146 | 14,636 | 1,176 | 698.9 | 20 / 190 |
| 150 | 14,999 | 1,176 | 699.4 | 70 / 14 |
| 156 | 15,616 | 500 | 702.9 | 28 / 13 |
| 160 | 15,963 | 500 | 711.0 | 13 / 13 |
| 163 | 16,326 | 500 | 718.2 | 13 / 13 |
| **BEAVERDAM CREEK (WEST)** | | | | |
| 004 | 400 | 2,791 | 684.4[4] | 223 / 158 |
| 008 | 800 | 2,791 | 684.4[4] | 158 / 53 |
| 011 | 1,121 | 2,791 | 684.4[4] | 19 / 112 |
| 016 | 1,600 | 2,791 | 684.4[4] | 68 / 109 |
| 020 | 2,000 | 2,791 | 684.5 | 52 / 246 |
| 025 | 2,474 | 2,791 | 684.9 | 70 / 193 |
| 029 | 2,941 | 2,791 | 685.6 | 175 / 125 |
| 033 | 3,323 | 2,791 | 686.1 | 108 / 265 |
| 036 | 3,600 | 2,791 | 686.4 | 125 / 196 |
| 041 | 4,106 | 2,791 | 687.0 | 182 / 231 |
| 044 | 4,400 | 2,593 | 687.3 | 252 / 250 |
| 048 | 4,800 | 2,593 | 687.6 | 257 / 201 |
| 050 | 5,017 | 2,593 | 687.8 | 308 / 109 |
| 052 | 5,200 | 2,593 | 687.9 | 313 / 22 |
| 064 | 6,400 | 2,593 | 691.3 | 66 / 342 |
| 068 | 6,800 | 2,593 | 691.6 | 18 / 293 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| BEAVERDAM CREEK (WEST) | | | | |
| 072 | 7,200 | 2,593 | 692.2 | 18 / 180 |
| 075 | 7,513 | 2,593 | 693.9 | 63 / 145 |
| 081 | 8,065 | 2,357 | 695.6 | 219 / 18 |
| 084 | 8,400 | 2,357 | 696.4 | 184 / 147 |
| 088 | 8,800 | 2,357 | 697.3 | 69 / 247 |
| 092 | 9,200 | 2,357 | 698.1 | 32 / 148 |
| 096 | 9,600 | 2,357 | 699.6 | 202 / 18 |
| 100 | 10,000 | 2,357 | 700.6 | 128 / 147 |
| 104 | 10,400 | 2,357 | 701.4 | 88 / 124 |
| 106 | 10,591 | 2,357 | 702.4 | 110 / 115 |
| 108 | 10,800 | 2,357 | 702.7 | 59 / 217 |
| 112 | 11,200 | 2,357 | 703.8 | 75 / 362 |
| 116 | 11,600 | 2,357 | 704.2 | 151 / 141 |
| 121 | 12,051 | 2,357 | 705.3 | 343 / 18 |
| 124 | 12,400 | 2,357 | 705.6 | 180 / 21 |
| 128 | 12,776 | 2,357 | 706.3 | 150 / 22 |
| 131 | 13,097 | 2,357 | 707.2 | 84 / 26 |
| 137 | 13,712 | 2,037 | 710.7 | 60 / 24 |
| 140 | 14,000 | 2,037 | 710.7 | 21 / 23 |
| 144 | 14,443 | 2,037 | 711.3 | 21 / 28 |
| 150 | 14,991 | 2,037 | 713.6 | 37 / 47 |
| 152 | 15,200 | 2,037 | 713.8 | 18 / 65 |
| 156 | 15,600 | 2,037 | 715.7 | 140 / 17 |
| 160 | 16,000 | 2,037 | 716.6 | 130 / 55 |
| 164 | 16,400 | 2,037 | 717.2 | 50 / 45 |
| 167 | 16,651 | 2,037 | 718.0 | 17 / 32 |
| 168 | 16,800 | 2,037 | 719.1 | 39 / 23 |
| 170 | 17,009 | 2,037 | 719.7 | 70 / 26 |
| 172 | 17,200 | 2,037 | 720.4 | 90 / 80 |
| 176 | 17,600 | 2,037 | 720.9 | 63 / 96 |
| 181 | 18,102 | 1,801 | 722.0 | 16 / 90 |
| 184 | 18,400 | 1,801 | 723.1 | 16 / 40 |
| 188 | 18,800 | 1,801 | 724.8 | 16 / 20 |
| 190 | 19,038 | 1,801 | 726.9 | 38 / 31 |
| 194 | 19,447 | 1,801 | 727.6 | 75 / 16 |
| 196 | 19,600 | 1,801 | 728.8 | 124 / 16 |
| 200 | 20,000 | 1,801 | 729.8 | 35 / 181 |
| 204 | 20,400 | 1,801 | 730.5 | 16 / 188 |
| 208 | 20,800 | 1,801 | 731.1 | 15 / 112 |
| 212 | 21,200 | 1,801 | 733.5 | 67 / 158 |
| 215 | 21,545 | 1,801 | 734.4 | 144 / 14 |
| 217 | 21,727 | 1,490 | 735.2 | 128 / 14 |
| 221 | 22,110 | 1,490 | 736.5 | 131 / 14 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| BEAVERDAM CREEK (WEST) | | | | |
| 224 | 22,400 | 1,490 | 738.4 | 16 / 69 |
| 228 | 22,800 | 1,490 | 740.0 | 58 / 90 |
| 232 | 23,175 | 1,490 | 741.0 | 67 / 155 |
| 236 | 23,600 | 1,490 | 742.0 | 17 / 120 |
| 238 | 23,780 | 1,490 | 742.6 | 14 / 130 |
| 240 | 24,000 | 1,490 | 743.5 | 14 / 170 |
| 244 | 24,400 | 1,490 | 744.9 | 14 / 190 |
| 249 | 24,913 | 1,490 | 746.6 | 25 / 45 |
| 251 | 25,142 | 1,490 | 749.4 | 50 / 90 |
| 254 | 25,358 | 1,490 | 749.7 | 30 / 85 |
| 255 | 25,536 | 1,490 | 750.0 | 41 / 17 |
| 258 | 25,781 | 1,490 | 751.2 | 35 / 16 |
| 260 | 26,000 | 1,490 | 752.4 | 73 / 16 |
| 264 | 26,400 | 1,490 | 753.0 | 50 / 19 |
| 268 | 26,800 | 1,490 | 753.5 | 28 / 28 |
| 273 | 27,313 | 1,134 | 760.4 | 51 / 20 |
| 276 | 27,600 | 1,134 | 760.6 | 25 / 110 |
| 280 | 28,000 | 1,134 | 760.8 | 85 / 49 |
| 284 | 28,400 | 1,134 | 761.4 | 56 / 13 |
| 288 | 28,824 | 1,134 | 763.6 | 20 / 25 |
| 293 | 29,311 | 1,134 | 766.7 | 85 / 13 |
| 296 | 29,600 | 1,134 | 768.0 | 101 / 40 |
| 300 | 30,000 | 1,134 | 769.4 | 70 / 45 |
| 305 | 30,525 | 1,134 | 771.3 | 10 / 18 |
| 309 | 30,935 | 1,134 | 775.7 | 55 / 20 |
| 312 | 31,200 | 1,134 | 776.9 | 51 / 55 |
| 316 | 31,600 | 737 | 779.8 | 59 / 7 |
| 321 | 32,080 | 737 | 783.3 | 13 / 24 |
| 324 | 32,400 | 737 | 784.9 | 12 / 50 |
| 328 | 32,800 | 737 | 787.0 | 12 / 50 |
| 330 | 33,041 | 737 | 789.1 | 20 / 23 |
| 332 | 33,184 | 737 | 790.6 | 50 / 16 |
| 336 | 33,600 | 737 | 792.8 | 12 / 50 |
| 338 | 33,812 | 737 | 794.0 | 15 / 20 |
| 340 | 34,000 | 737 | 796.3 | 12 / 49 |
| 344 | 34,400 | 737 | 798.9 | 12 / 37 |
| 348 | 34,800 | 737 | 800.7 | 38 / 12 |
| 352 | 35,200 | 737 | 802.9 | 20 / 12 |
| 354 | 35,412 | 737 | 805.7 | 12 / 15 |
| 356 | 35,608 | 737 | 809.8 | 12 / 40 |
| 358 | 35,790 | 737 | 811.6 | 15 / 15 |
| 359 | 35,925 | 737 | 813.9 | 12 / 35 |
| 361 | 36,096 | 737 | 814.7 | 12 / 34 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **BEAVERDAM CREEK (WEST)** | | | | |
| 362 | 36,244 | 737 | 816.1 | 12 / 45 |
| 364 | 36,401 | 737 | 818.1 | 12 / 59 |
| 366 | 36,580 | 737 | 822.3 | 12 / 25 |
| 367 | 36,735 | 737 | 825.0 | 12 / 25 |
| 369 | 36,883 | 737 | 826.8 | 15 / 46 |
| 370 | 37,019 | 737 | 829.5 | 11 / 25 |
| 372 | 37,171 | 737 | 833.3 | 9 / 11 |
| 373 | 37,324 | 737 | 836.1 | 12 / 9 |
| 375 | 37,500 | 737 | 838.2 | 7 / 7 |
| 377 | 37,659 | 737 | 841.0 | 11 / 7 |
| 379 | 37,923 | 737 | 847.6 | 18 / 18 |
| 381 | 38,092 | 737 | 850.7 | 12 / 21 |
| **BELL BRANCH** | | | | |
| 005 | 545 | 2,635 | 697.3[4] | 276 / 147 |
| 011 | 1,070 | 2,635 | 697.3[4] | 177 / 231 |
| 015 | 1,500 | 2,635 | 697.3[4] | 143 / 180 |
| **BOST BRANCH** | | | | |
| 003 | 263 | 647 | 668.8[4] | 26 / 142 |
| 007 | 656 | 647 | 668.8[4] | 42 / 104 |
| 011 | 1,122 | 647 | 669.3 | 32 / 32 |
| 014 | 1,350 | 647 | 671.7 | 32 / 32 |
| **CEDAR CREEK** | | | | |
| 006 | 579 | 2,030 | 577.6[4] | 40 / 56 |
| 011 | 1,134 | 2,030 | 577.6[4] | 35 / 50 |
| 017 | 1,683 | 2,030 | 577.6[4] | 112 / 33 |
| 022 | 2,249 | 2,030 | 577.6[4] | 36 / 52 |
| 028 | 2,791 | 2,030 | 577.6[4] | 137 / 25 |
| 033 | 3,329 | 1,919 | 577.6[4] | 139 / 16 |
| 038 | 3,798 | 1,919 | 577.6[4] | 103 / 16 |
| **CHURCH CREEK TRIBUTARY 1** | | | | |
| 006 | 561 | 962 | 659.8[4] | 190 / 184 |
| 011 | 1,099 | 962 | 660.7 | 40 / 150 |
| 014 | 1,419 | 962 | 666.6 | 8 / 25 |
| 016 | 1,584 | 962 | 668.7 | 11 / 10 |
| 021 | 2,145 | 927 | 678.0 | 76 / 50 |
| 025 | 2,538 | 927 | 678.0 | 44 / 17 |
| 031 | 3,112 | 927 | 682.8 | 15 / 20 |
| 036 | 3,590 | 927 | 687.2 | 15 / 55 |
| 040 | 4,018 | 927 | 689.9 | 51 / 65 |
| 045 | 4,458 | 887 | 692.2 | 15 / 20 |
| 049 | 4,935 | 887 | 695.2 | 15 / 20 |
| 054 | 5,423 | 887 | 699.6 | 10 / 51 |
| 061 | 6,062 | 842 | 704.1 | 18 / 20 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **CHURCH CREEK TRIBUTARY 1** | | | | |
| 064 | 6,385 | 842 | 706.6 | 30 / 33 |
| 066 | 6,634 | 842 | 709.0 | 48 / 59 |
| 072 | 7,163 | 842 | 713.4 | 12 / 31 |
| 075 | 7,481 | 842 | 715.9 | 26 / 58 |
| 079 | 7,870 | 792 | 718.3 | 12 / 28 |
| 082 | 8,206 | 792 | 720.9 | 55 / 24 |
| 088 | 8,831 | 792 | 725.3 | 50 / 14 |
| 094 | 9,382 | 736 | 729.0 | 12 / 108 |
| 097 | 9,719 | 736 | 730.2 | 12 / 109 |
| 101 | 10,123 | 696 | 732.3 | 12 / 96 |
| 108 | 10,802 | 696 | 736.8 | 84 / 12 |
| 114 | 11,395 | 645 | 740.9 | 17 / 12 |
| 119 | 11,946 | 621 | 744.6 | 24 / 21 |
| 125 | 12,540 | 621 | 747.9 | 19 / 12 |
| 129 | 12,931 | 580 | 750.9 | 40 / 35 |
| 136 | 13,552 | 580 | 753.8 | 63 / 12 |
| 142 | 14,169 | 580 | 757.5 | 27 / 12 |
| 146 | 14,630 | 551 | 760.9 | 39 / 12 |
| 153 | 15,258 | 551 | 765.2 | 66 / 22 |
| 157 | 15,729 | 465 | 769.6 | 20 / 12 |
| **CHURCH CREEK TRIBUTARY 1A** | | | | |
| 002 | 169 | 1,192 | 659.6[4] | 135 / 172 |
| 003 | 321 | 1,192 | 659.6[4] | 106 / 62 |
| 007 | 699 | 1,192 | 663.0 | 27 / 58 |
| 012 | 1,183 | 1,192 | 666.8 | 43 / 73 |
| 018 | 1,818 | 1,160 | 670.9 | 85 / 17 |
| 024 | 2,359 | 1,160 | 674.4 | 257 / 11 |
| 026 | 2,599 | 1,160 | 677.4 | 30 / 8 |
| 032 | 3,208 | 1,086 | 686.9 | 185 / 64 |
| 034 | 3,433 | 1,086 | 688.5 | 28 / 13 |
| 040 | 4,025 | 1,086 | 694.0 | 13 / 106 |
| 045 | 4,477 | 1,086 | 697.7 | 13 / 17 |
| 049 | 4,902 | 1,086 | 701.8 | 21 / 96 |
| 054 | 5,407 | 1,086 | 704.2 | 44 / 34 |
| 059 | 5,868 | 866 | 706.9 | 74 / 12 |
| 064 | 6,407 | 866 | 709.5 | 54 / 12 |
| 070 | 6,973 | 866 | 714.0 | 26 / 30 |
| 074 | 7,413 | 826 | 716.6 | 49 / 12 |
| 076 | 7,599 | 826 | 717.5 | 27 / 55 |
| 078 | 7,809 | 826 | 720.0 | 30 / 35 |
| 082 | 8,159 | 826 | 722.8 | 30 / 57 |
| 088 | 8,827 | 579 | 728.9 | 55 / 14 |
| 094 | 9,403 | 556 | 733.4 | 47 / 12 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **CHURCH CREEK TRIBUTARY 1A** | | | | |
| 100 | 9,965 | 556 | 738.0 | 12 / 29 |
| 104 | 10,379 | 535 | 741.3 | 12 / 26 |
| 108 | 10,767 | 479 | 744.5 | 48 / 12 |
| 112 | 11,207 | 479 | 746.9 | 13 / 11 |
| 117 | 11,742 | 479 | 751.9 | 12 / 17 |
| **CHURCH CREEK TRIBUTARY 2** | | | | |
| 007 | 726 | 1,403 | 732.9[4] | 97 / 55 |
| 015 | 1,515 | 1,403 | 733.5 | 47 / 187 |
| 020 | 1,998 | 1,238 | 734.8 | 44 / 188 |
| 025 | 2,457 | 1,238 | 737.0 | 86 / 127 |
| 030 | 2,964 | 1,238 | 740.6 | 129 / 32 |
| 033 | 3,322 | 1,188 | 741.0 | 109 / 84 |
| 039 | 3,876 | 1,188 | 742.3 | 49 / 83 |
| 044 | 4,355 | 1,188 | 744.2 | 36 / 83 |
| 048 | 4,805 | 1,188 | 746.0 | 106 / 63 |
| 051 | 5,074 | 906 | 747.0 | 46 / 128 |
| 053 | 5,343 | 906 | 747.8 | 32 / 56 |
| 059 | 5,911 | 855 | 750.4 | 32 / 60 |
| 063 | 6,285 | 815 | 752.3 | 32 / 74 |
| 068 | 6,828 | 797 | 756.5 | 14 / 32 |
| **COLD WATER CREEK** | | | | |
| 776 | 77,617 | 3,940 | 650.0 | 867 / 483 |
| 779 | 77,931 | 4,015 | 650.0 | 325 / 210 |
| 785 | 78,489 | 4,015 | 650.0 | 340 / 447 |
| 791 | 79,099 | 4,015 | 650.0 | 365 / 435 |
| 806 | 80,575 | 3,784 | 650.2 | 420 / 170 |
| 811 | 81,083 | 3,784 | 650.4 | 200 / 40 |
| 815 | 81,454 | 3,784 | 650.9 | 200 / 40 |
| 820 | 81,970 | 3,784 | 651.7 | 85 / 84 |
| **COLD WATER CREEK TRIBUTARY 1** | | | | |
| 000 | 25 | 892 | 654.8[4] | 160 / 45 |
| 007 | 696 | 892 | 660.7 | 110 / 8 |
| 009 | 900 | 850 | 660.7 | 50 / 90 |
| 014 | 1,370 | 841 | 662.5 | 72 / 50 |
| 017 | 1,679 | 841 | 662.5 | 90 / 20 |
| **CRANE CREEK TRIBUTARY 1** | | | | |
| 005 | 475 | 1,837 | 625.7[4] | 448 / 148 |
| 009 | 932 | 1,837 | 625.7[4] | 121 / 148 |
| 014 | 1,409 | 1,776 | 625.7[4] | 214 / 212 |
| 019 | 1,945 | 1,776 | 625.7[4] | 254 / 182 |
| 022 | 2,246 | 1,776 | 625.7[4] | 94 / 196 |
| 027 | 2,678 | 1,776 | 625.7[4] | 162 / 189 |
| 032 | 3,218 | 1,755 | 625.7[4] | 100 / 116 |
| 037 | 3,697 | 1,755 | 625.7[4] | 153 / 150 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **CRANE CREEK TRIBUTARY 1** | | | | |
| 042 | 4,181 | 1,755 | 625.7[4] | 219 / 149 |
| 046 | 4,647 | 1,755 | 625.7[4] | 14 / 175 |
| 048 | 4,818 | 1,755 | 625.7[4] | 94 / 59 |
| 051 | 5,069 | 1,755 | 626.3 | 70 / 66 |
| 056 | 5,622 | 1,620 | 627.7 | 166 / 20 |
| 062 | 6,202 | 1,600 | 628.8 | 83 / 83 |
| 068 | 6,774 | 1,600 | 630.3 | 85 / 13 |
| 073 | 7,348 | 1,600 | 632.6 | 15 / 123 |
| 078 | 7,816 | 1,600 | 633.9 | 109 / 13 |
| 082 | 8,156 | 1,568 | 635.1 | 36 / 112 |
| 085 | 8,536 | 1,568 | 636.5 | 51 / 95 |
| 089 | 8,924 | 1,495 | 638.7 | 13 / 122 |
| 095 | 9,498 | 1,495 | 641.7 | 41 / 101 |
| 098 | 9,789 | 1,495 | 643.3 | 17 / 45 |
| 101 | 10,145 | 1,495 | 645.8 | 23 / 41 |
| 106 | 10,597 | 1,466 | 648.2 | 73 / 17 |
| 112 | 11,169 | 1,466 | 650.5 | 163 / 12 |
| **CRANE CREEK TRIBUTARY 2** | | | | |
| 024 | 2,353 | 1,199 | 734.5[5] | 60 / 35 |
| 031 | 3,050 | 1,085 | 737.1 | 75 / 15 |
| 036 | 3,627 | 1,085 | 740.2 | 28 / 22 |
| 041 | 4,135 | 1,085 | 746.6 | 15 / 85 |
| 046 | 4,615 | 1,058 | 750.5 | 50 / 55 |
| 051 | 5,050 | 901 | 754.7 | 25 / 28 |
| 055 | 5,460 | 901 | 761.3 | 12 / 12 |
| 059 | 5,944 | 901 | 771.0 | 72 / 30 |
| 064 | 6,423 | 741 | 771.2 | 19 / 12 |
| 068 | 6,827 | 741 | 776.3 | 36 / 12 |
| 072 | 7,248 | 700 | 783.0 | 12 / 17 |
| 076 | 7,572 | 592 | 790.7 | 12 / 46 |
| 081 | 8,079 | 592 | 804.1 | 12 / 12 |
| 083 | 8,330 | 514 | 814.4 | 40 / 3 |
| 085 | 8,493 | 514 | 816.9 | 50 / 12 |
| 090 | 8,959 | 470 | 827.9 | 18 / 12 |
| 094 | 9,427 | 417 | 836.7 | 22 / 12 |
| 098 | 9,788 | 417 | 845.6 | 3 / 30 |
| 099 | 9,928 | 417 | 849.5 | 12 / 12 |
| 106 | 10,560 | 417 | 861.9 | 23 / 12 |
| **DUTCH BUFFALO CREEK** | | | | |
| 1130 | 112,973 | 3,400 | 684.0 | 200 / 110 |
| **DUTCH BUFFALO CREEK TRIBUTARY 1** | | | | |
| 061 | 6,133 | 1,747 | 687.6 | 121 / 36 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| EAST FORK CREEK | | | | |
| 002 | 221 | 3,253 | 674.2[4] | 240 / 18 |
| 006 | 572 | 3,253 | 674.3 | 90 / 90 |
| 008 | 845 | 3,253 | 675.3 | 50 / 140 |
| 013 | 1,301 | 3,253 | 675.8 | 60 / 110 |
| 016 | 1,607 | 3,253 | 676.9 | 160 / 25 |
| 022 | 2,232 | 3,253 | 678.2 | 130 / 100 |
| 024 | 2,444 | 3,253 | 678.5 | 63 / 168 |
| 027 | 2,728 | 3,253 | 678.9 | 120 / 190 |
| 031 | 3,063 | 3,093 | 679.1 | 40 / 185 |
| 037 | 3,656 | 3,093 | 680.3 | 119 / 97 |
| 039 | 3,891 | 3,093 | 680.6 | 114 / 40 |
| 044 | 4,388 | 3,093 | 681.3 | 75 / 140 |
| 049 | 4,875 | 3,093 | 681.9 | 224 / 15 |
| 054 | 5,383 | 3,093 | 682.6 | 130 / 22 |
| 058 | 5,831 | 3,093 | 683.4 | 97 / 95 |
| 068 | 6,834 | 2,534 | 686.1 | 200 / 40 |
| 073 | 7,318 | 2,534 | 687.0 | 195 / 86 |
| 076 | 7,578 | 2,534 | 687.5 | 240 / 18 |
| 081 | 8,098 | 2,534 | 688.8 | 263 / 60 |
| 089 | 8,921 | 2,534 | 691.1 | 260 / 14 |
| 093 | 9,330 | 2,534 | 692.2 | 299 / 18 |
| 099 | 9,884 | 2,534 | 693.7 | 296 / 30 |
| 103 | 10,284 | 2,534 | 695.0 | 250 / 18 |
| 107 | 10,748 | 2,534 | 696.9 | 305 / 38 |
| 112 | 11,229 | 2,534 | 698.6 | 255 / 18 |
| 115 | 11,458 | 2,534 | 699.7 | 230 / 25 |
| 118 | 11,761 | 2,534 | 701.4 | 295 / 14 |
| 125 | 12,500 | 2,534 | 704.1 | 370 / 50 |
| 129 | 12,898 | 2,534 | 705.8 | 249 / 14 |
| 131 | 13,136 | 2,534 | 707.4 | 287 / 14 |
| 135 | 13,514 | 2,534 | 708.9 | 266 / 46 |
| 140 | 13,974 | 2,369 | 710.9 | 95 / 145 |
| 143 | 14,296 | 2,369 | 711.6 | 75 / 180 |
| 149 | 14,882 | 2,369 | 712.9 | 14 / 260 |
| 151 | 15,145 | 2,369 | 713.5 | 50 / 300 |
| 156 | 15,625 | 2,369 | 714.0 | 155 / 260 |
| 161 | 16,117 | 2,369 | 714.9 | 60 / 200 |
| 166 | 16,589 | 2,369 | 717.8 | 120 / 310 |
| 170 | 17,000 | 2,369 | 718.9 | 165 / 217 |
| 175 | 17,500 | 2,369 | 720.9 | 130 / 165 |
| 182 | 18,151 | 2,369 | 723.8 | 100 / 185 |
| 187 | 18,671 | 1,603 | 725.4 | 15 / 230 |
| 191 | 19,120 | 1,603 | 726.3 | 160 / 202 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **EAST FORK CREEK** | | | | |
| 195 | 19,545 | 1,603 | 727.4 | 250 / 14 |
| 199 | 19,853 | 1,603 | 728.7 | 235 / 60 |
| 202 | 20,182 | 1,603 | 730.1 | 120 / 85 |
| 204 | 20,405 | 1,504 | 731.8 | 28 / 124 |
| 207 | 20,662 | 1,504 | 733.2 | 30 / 90 |
| 208 | 20,793 | 1,504 | 733.8 | 30 / 60 |
| 213 | 21,278 | 1,504 | 739.0 | 90 / 90 |
| 216 | 21,634 | 1,504 | 739.1 | 100 / 25 |
| 222 | 22,152 | 1,504 | 740.4 | 60 / 25 |
| 225 | 22,494 | 1,504 | 742.8 | 42 / 55 |
| 229 | 22,926 | 1,307 | 744.3 | 40 / 25 |
| 235 | 23,532 | 1,307 | 747.2 | 21 / 17 |
| 238 | 23,766 | 1,307 | 748.9 | 14 / 13 |
| 242 | 24,165 | 1,307 | 752.6 | 25 / 15 |
| 245 | 24,532 | 1,307 | 754.3 | 25 / 18 |
| 250 | 25,002 | 1,307 | 755.7 | 19 / 35 |
| 256 | 25,601 | 1,006 | 757.3 | 26 / 16 |
| 258 | 25,837 | 1,006 | 758.5 | 13 / 16 |
| 262 | 26,202 | 1,006 | 762.1 | 17 / 12 |
| 264 | 26,447 | 1,006 | 764.4 | 22 / 18 |
| 268 | 26,755 | 1,006 | 767.3 | 24 / 26 |
| 271 | 27,099 | 957 | 769.2 | 50 / 12 |
| 276 | 27,603 | 957 | 771.5 | 50 / 12 |
| 279 | 27,913 | 957 | 772.7 | 20 / 12 |
| 281 | 28,142 | 957 | 774.3 | 15 / 8 |
| 285 | 28,451 | 957 | 777.7 | 32 / 8 |
| 288 | 28,848 | 957 | 780.4 | 30 / 22 |
| 292 | 29,204 | 751 | 782.0 | 15 / 15 |
| 295 | 29,497 | 751 | 783.9 | 20 / 8 |
| 297 | 29,678 | 751 | 785.4 | 25 / 20 |
| 299 | 29,866 | 751 | 787.0 | 50 / 25 |
| 301 | 30,099 | 751 | 789.2 | 43 / 12 |
| 303 | 30,286 | 751 | 789.8 | 19 / 15 |
| 306 | 30,589 | 751 | 791.7 | 20 / 9 |
| 308 | 30,798 | 672 | 794.3 | 20 / 43 |
| 310 | 31,007 | 672 | 795.9 | 25 / 20 |
| 312 | 31,224 | 672 | 796.8 | 8 / 15 |
| 315 | 31,489 | 672 | 801.3 | 22 / 22 |
| 316 | 31,632 | 672 | 801.9 | 19 / 19 |
| **FISHER BRANCH** | | | | |
| 002 | 239 | 2,084 | 669.6[4] | 169 / 212 |
| 005 | 475 | 2,084 | 669.6[4] | 80 / 165 |
| 009 | 882 | 2,084 | 669.6[4] | 68 / 166 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **FISHER BRANCH** | | | | |
| 015 | 1,530 | 2,084 | 671.5 | 107 / 27 |
| 019 | 1,940 | 2,084 | 672.0 | 90 / 203 |
| 024 | 2,433 | 2,015 | 672.3 | 37 / 37 |
| 028 | 2,821 | 2,015 | 674.0 | 50 / 195 |
| 034 | 3,363 | 2,015 | 674.5 | 261 / 37 |
| 038 | 3,817 | 2,015 | 675.3 | 39 / 39 |
| 047 | 4,659 | 1,910 | 680.9 | 37 / 30 |
| 050 | 5,002 | 1,910 | 682.5 | 53 / 61 |
| 055 | 5,467 | 1,910 | 683.5 | 37 / 135 |
| 061 | 6,096 | 1,910 | 685.0 | 36 / 36 |
| 065 | 6,525 | 1,910 | 687.3 | 74 / 68 |
| 069 | 6,935 | 1,910 | 688.9 | 154 / 36 |
| 077 | 7,708 | 1,823 | 690.9 | 21 / 216 |
| 081 | 8,088 | 1,823 | 692.4 | 130 / 29 |
| 090 | 8,999 | 1,705 | 695.1 | 22 / 75 |
| 092 | 9,207 | 1,705 | 697.3 | 50 / 45 |
| 094 | 9,430 | 1,705 | 698.6 | 63 / 26 |
| 099 | 9,925 | 1,705 | 701.7 | 80 / 25 |
| 103 | 10,268 | 1,572 | 703.5 | 21 / 84 |
| 108 | 10,765 | 1,572 | 705.8 | 35 / 156 |
| 112 | 11,222 | 1,572 | 707.2 | 35 / 154 |
| 116 | 11,567 | 1,572 | 708.6 | 114 / 66 |
| 120 | 12,043 | 1,572 | 711.7 | 74 / 35 |
| 126 | 12,567 | 1,572 | 715.4 | 35 / 68 |
| 130 | 12,996 | 1,429 | 718.1 | 42 / 34 |
| 134 | 13,427 | 1,429 | 721.2 | 34 / 71 |
| 139 | 13,875 | 1,429 | 723.5 | 208 / 34 |
| 145 | 14,524 | 1,367 | 726.4 | 138 / 39 |
| 149 | 14,884 | 1,367 | 728.5 | 34 / 36 |
| 153 | 15,306 | 1,367 | 733.6 | 33 / 34 |
| 157 | 15,716 | 1,224 | 737.3 | 80 / 22 |
| 160 | 15,954 | 1,224 | 738.4 | 90 / 81 |
| 163 | 16,304 | 1,224 | 740.0 | 165 / 40 |
| **FLAT CREEK** | | | | |
| 014 | 1,385 | 2,936 | 574.1[4] | 117 / 264 |
| 019 | 1,905 | 2,936 | 574.1[4] | 293 / 334 |
| 026 | 2,622 | 2,852 | 574.1[4] | 333 / 424 |
| 033 | 3,291 | 2,852 | 574.1[4] | 249 / 311 |
| 039 | 3,911 | 2,852 | 574.1[4] | 386 / 445 |
| 045 | 4,471 | 2,852 | 574.1[4] | 344 / 426 |
| 049 | 4,908 | 2,852 | 574.1[4] | 169 / 191 |
| 056 | 5,613 | 2,432 | 574.1[4] | 195 / 149 |
| 063 | 6,255 | 2,432 | 574.1[4] | 218 / 89 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **FLAT CREEK** | | | | |
| 068 | 6,843 | 2,432 | 574.1[4] | 113 / 112 |
| 075 | 7,515 | 2,250 | 574.1[4] | 56 / 99 |
| 081 | 8,126 | 2,250 | 576.2 | 58 / 70 |
| 086 | 8,634 | 2,250 | 578.8 | 117 / 87 |
| 092 | 9,200 | 2,250 | 580.9 | 112 / 106 |
| 099 | 9,925 | 2,250 | 583.3 | 98 / 138 |
| 105 | 10,455 | 2,150 | 584.8 | 170 / 17 |
| 110 | 11,008 | 2,150 | 586.4 | 151 / 137 |
| 117 | 11,720 | 2,129 | 587.9 | 84 / 345 |
| 121 | 12,071 | 2,129 | 588.7 | 224 / 55 |
| **FLAT ROCK BRANCH** | | | | |
| 002 | 211 | 1,216 | 760.2[4] | 58 / 15 |
| 004 | 394 | 1,188 | 760.3 | 18 / 17 |
| 010 | 956 | 1,188 | 764.9 | 31 / 50 |
| 015 | 1,500 | 1,188 | 767.3 | 31 / 20 |
| 017 | 1,738 | 1,188 | 768.8 | 87 / 23 |
| 029 | 2,913 | 1,058 | 783.7 | 305 / 281 |
| 036 | 3,557 | 1,058 | 783.7 | 187 / 162 |
| 039 | 3,926 | 968 | 783.7 | 259 / 248 |
| 046 | 4,565 | 968 | 783.7 | 194 / 194 |
| 048 | 4,806 | 931 | 783.7 | 172 / 204 |
| 053 | 5,303 | 931 | 783.8 | 144 / 47 |
| 057 | 5,696 | 931 | 787.1 | 44 / 173 |
| **FOURTH CREEK** | | | | |
| 007 | 692 | 19,315 | 655.9[4] | 275 / 592 |
| 013 | 1,253 | 19,315 | 655.9[4] | 413 / 190 |
| 017 | 1,655 | 19,315 | 655.9[4] | 362 / 114 |
| 024 | 2,397 | 19,315 | 655.9[4] | 227 / 179 |
| 031 | 3,081 | 19,315 | 655.9[4] | 645 / 224 |
| 035 | 3,534 | 19,315 | 655.9[4] | 389 / 222 |
| 042 | 4,212 | 19,315 | 655.9[4] | 150 / 453 |
| 047 | 4,737 | 19,315 | 655.9[4] | 75 / 695 |
| 054 | 5,447 | 19,315 | 655.9[4] | 52 / 547 |
| 059 | 5,910 | 19,315 | 655.9[4] | 132 / 920 |
| 064 | 6,446 | 19,315 | 655.9[4] | 174 / 1,192 |
| 070 | 7,021 | 19,315 | 655.9[4] | 70 / 979 |
| 075 | 7,483 | 19,315 | 655.9[4] | 188 / 733 |
| 080 | 8,013 | 19,315 | 655.9[4] | 442 / 484 |
| 086 | 8,604 | 19,315 | 655.9[4] | 694 / 298 |
| 096 | 9,574 | 19,315 | 655.9[4] | 147 / 840 |
| 109 | 10,887 | 19,315 | 655.9[4] | 800 / 696 |
| 117 | 11,679 | 19,315 | 655.9[4] | 508 / 763 |
| 121 | 12,092 | 19,315 | 655.9[4] | 457 / 539 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| FOURTH CREEK | | | | |
| 126 | 12,574 | 19,315 | 655.9[4] | 159 / 395 |
| 131 | 13,121 | 19,315 | 655.9[4] | 70 / 284 |
| 135 | 13,498 | 19,315 | 655.9[4] | 110 / 222 |
| 141 | 14,072 | 19,315 | 655.9[4] | 111 / 63 |
| 145 | 14,507 | 19,315 | 655.9[4] | 106 / 115 |
| 149 | 14,927 | 19,315 | 655.9[4] | 44 / 246 |
| 153 | 15,326 | 19,315 | 655.9[4] | 98 / 126 |
| 157 | 15,656 | 19,315 | 655.9[4] | 124 / 56 |
| 163 | 16,334 | 19,315 | 656.4 | 145 / 91 |
| 169 | 16,888 | 19,315 | 657.6 | 53 / 249 |
| 176 | 17,565 | 19,315 | 658.8 | 130 / 413 |
| 182 | 18,217 | 19,315 | 659.3 | 38 / 483 |
| 185 | 18,528 | 19,315 | 659.4 | 134 / 407 |
| 189 | 18,930 | 19,315 | 659.5 | 158 / 196 |
| 193 | 19,296 | 19,315 | 659.7 | 161 / 109 |
| 199 | 19,879 | 19,315 | 660.1 | 275 / 41 |
| 206 | 20,638 | 19,315 | 661.2 | 231 / 180 |
| 213 | 21,307 | 19,315 | 661.5 | 184 / 39 |
| 222 | 22,208 | 19,315 | 664.6 | 181 / 121 |
| 227 | 22,664 | 19,315 | 664.9 | 110 / 118 |
| 230 | 22,965 | 19,315 | 665.2 | 56 / 160 |
| 233 | 23,346 | 19,315 | 665.6 | 126 / 100 |
| 237 | 23,717 | 19,315 | 665.9 | 104 / 78 |
| 241 | 24,082 | 19,315 | 666.8 | 158 / 55 |
| 245 | 24,488 | 19,315 | 667.5 | 66 / 196 |
| 248 | 24,837 | 19,315 | 667.7 | 184 / 189 |
| 256 | 25,627 | 19,315 | 668.2 | 100 / 274 |
| 263 | 26,343 | 19,315 | 668.6 | 372 / 439 |
| 269 | 26,886 | 19,315 | 668.6 | 389 / 134 |
| 277 | 27,729 | 19,315 | 668.8 | 261 / 51 |
| 282 | 28,165 | 19,315 | 669.5 | 329 / 260 |
| 285 | 28,465 | 19,315 | 669.5 | 323 / 238 |
| 290 | 28,972 | 12,763 | 669.6 | 78 / 103 |
| 292 | 29,208 | 12,763 | 670.0 | 129 / 173 |
| 297 | 29,746 | 12,763 | 670.3 | 175 / 184 |
| 303 | 30,268 | 12,763 | 670.6 | 480 / 187 |
| 308 | 30,752 | 12,763 | 670.6 | 832 / 257 |
| 313 | 31,345 | 12,763 | 670.6 | 926 / 290 |
| 321 | 32,149 | 12,763 | 670.6 | 728 / 292 |
| 326 | 32,592 | 12,763 | 670.6 | 615 / 237 |
| 332 | 33,217 | 12,763 | 670.7 | 460 / 271 |
| 342 | 34,245 | 12,763 | 670.9 | 357 / 56 |
| 348 | 34,815 | 12,763 | 671.0 | 214 / 108 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| FOURTH CREEK | | | | |
| 354 | 35,431 | 12,763 | 671.4 | 93 / 307 |
| 361 | 36,064 | 12,763 | 671.5 | 166 / 109 |
| 365 | 36,493 | 12,763 | 671.9 | 61 / 120 |
| 371 | 37,143 | 12,763 | 672.7 | 51 / 203 |
| 376 | 37,555 | 12,763 | 672.9 | 66 / 141 |
| 381 | 38,058 | 12,763 | 673.6 | 249 / 110 |
| 384 | 38,430 | 12,763 | 673.8 | 238 / 87 |
| 390 | 38,993 | 12,763 | 674.1 | 555 / 63 |
| 396 | 39,614 | 12,763 | 674.3 | 444 / 114 |
| 401 | 40,050 | 12,763 | 674.3 | 164 / 121 |
| 407 | 40,706 | 12,763 | 674.6 | 56 / 274 |
| 414 | 41,428 | 12,763 | 675.3 | 160 / 84 |
| 420 | 41,952 | 12,763 | 676.0 | 196 / 145 |
| 424 | 42,352 | 12,763 | 676.5 | 396 / 277 |
| 428 | 42,832 | 12,763 | 676.6 | 133 / 468 |
| 435 | 43,480 | 12,763 | 676.8 | 201 / 272 |
| 440 | 44,023 | 12,763 | 677.1 | 351 / 148 |
| 445 | 44,545 | 12,763 | 677.3 | 298 / 74 |
| 450 | 44,980 | 12,763 | 677.7 | 258 / 337 |
| 458 | 45,831 | 12,591 | 678.0 | 101 / 414 |
| 467 | 46,718 | 12,433 | 678.4 | 552 / 95 |
| 473 | 47,278 | 12,433 | 678.5 | 290 / 62 |
| 480 | 48,019 | 12,433 | 679.5 | 161 / 69 |
| 486 | 48,586 | 12,433 | 680.6 | 70 / 73 |
| 491 | 49,092 | 12,433 | 682.6 | 86 / 119 |
| 496 | 49,573 | 12,433 | 683.7 | 138 / 166 |
| 500 | 50,046 | 12,433 | 684.4 | 46 / 226 |
| 505 | 50,525 | 12,433 | 684.6 | 141 / 39 |
| 511 | 51,127 | 12,433 | 686.1 | 165 / 34 |
| 519 | 51,900 | 12,433 | 691.1 | 40 / 99 |
| 522 | 52,183 | 12,433 | 691.6 | 38 / 122 |
| 526 | 52,602 | 12,433 | 692.7 | 38 / 147 |
| 531 | 53,106 | 12,433 | 693.4 | 36 / 142 |
| 537 | 53,721 | 12,433 | 694.2 | 64 / 50 |
| 542 | 54,207 | 12,433 | 695.2 | 71 / 34 |
| 549 | 54,875 | 12,433 | 698.0 | 40 / 71 |
| 555 | 55,532 | 12,433 | 700.6 | 154 / 39 |
| 560 | 55,993 | 12,433 | 701.3 | 67 / 75 |
| 565 | 56,532 | 12,433 | 702.7 | 102 / 46 |
| 571 | 57,056 | 12,433 | 704.7 | 103 / 76 |
| 580 | 57,953 | 12,433 | 707.6 | 122 / 180 |
| 585 | 58,517 | 12,433 | 707.8 | 69 / 151 |
| 589 | 58,864 | 12,351 | 708.6 | 135 / 217 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| FOURTH CREEK | | | | |
| 594 | 59,426 | 12,351 | 709.0 | 293 / 372 |
| 602 | 60,160 | 12,351 | 709.1 | 265 / 110 |
| 605 | 60,493 | 12,351 | 709.3 | 399 / 341 |
| 611 | 61,147 | 12,351 | 709.4 | 624 / 315 |
| 616 | 61,584 | 12,202 | 709.5 | 426 / 140 |
| 620 | 61,993 | 12,202 | 709.5 | 250 / 53 |
| 625 | 62,493 | 12,202 | 709.8 | 133 / 117 |
| 631 | 63,113 | 12,202 | 710.4 | 171 / 330 |
| 637 | 63,674 | 12,202 | 710.8 | 109 / 235 |
| 644 | 64,395 | 12,202 | 711.3 | 347 / 212 |
| 650 | 64,993 | 12,202 | 711.5 | 166 / 336 |
| 655 | 65,456 | 12,202 | 711.6 | 229 / 307 |
| 662 | 66,205 | 12,202 | 714.3 | 110 / 74 |
| 665 | 66,533 | 12,202 | 715.0 | 177 / 104 |
| 668 | 66,848 | 12,202 | 715.3 | 281 / 216 |
| 675 | 67,485 | 12,202 | 715.3 | 433 / 252 |
| 679 | 67,916 | 12,202 | 715.4 | 554 / 95 |
| 684 | 68,412 | 12,202 | 715.5 | 541 / 59 |
| 692 | 69,193 | 12,202 | 715.6 | 692 / 33 |
| 699 | 69,866 | 12,202 | 715.7 | 513 / 309 |
| 706 | 70,588 | 12,202 | 715.8 | 229 / 240 |
| 710 | 70,958 | 12,202 | 716.1 | 362 / 261 |
| 719 | 71,873 | 12,030 | 719.0 | 519 / 513 |
| 724 | 72,427 | 12,030 | 719.0 | 395 / 844 |
| 729 | 72,902 | 12,030 | 719.1 | 411 / 502 |
| 735 | 73,493 | 12,030 | 719.2 | 386 / 566 |
| 740 | 73,979 | 12,030 | 719.2 | 424 / 314 |
| 745 | 74,493 | 12,030 | 719.3 | 651 / 559 |
| 750 | 74,993 | 12,030 | 719.4 | 424 / 838 |
| 757 | 75,664 | 12,030 | 719.4 | 179 / 608 |
| 761 | 76,131 | 12,030 | 719.6 | 177 / 256 |
| 769 | 76,868 | 11,826 | 719.6 | 57 / 160 |
| 774 | 77,423 | 11,826 | 721.5 | 54 / 180 |
| 779 | 77,925 | 11,826 | 722.3 | 63 / 258 |
| 786 | 78,576 | 11,826 | 722.4 | 122 / 42 |
| 789 | 78,945 | 11,826 | 723.0 | 52 / 42 |
| 796 | 79,592 | 11,826 | 725.6 | 78 / 107 |
| 801 | 80,112 | 11,826 | 726.5 | 44 / 192 |
| 807 | 80,678 | 11,826 | 727.4 | 241 / 293 |
| 810 | 80,993 | 11,826 | 727.4 | 290 / 169 |
| 814 | 81,364 | 11,826 | 727.4 | 201 / 47 |
| 819 | 81,894 | 11,826 | 728.0 | 140 / 356 |
| 823 | 82,270 | 11,826 | 728.1 | 130 / 395 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **FOURTH CREEK** | | | | |
| 829 | 82,927 | 11,826 | 728.2 | 64 / 283 |
| 836 | 83,641 | 11,826 | 728.6 | 333 / 104 |
| 841 | 84,090 | 11,691 | 728.9 | 188 / 516 |
| 845 | 84,539 | 11,691 | 728.9 | 35 / 352 |
| 850 | 84,987 | 11,691 | 729.2 | 165 / 475 |
| 855 | 85,464 | 11,691 | 729.4 | 535 / 349 |
| 859 | 85,907 | 11,691 | 729.5 | 497 / 303 |
| **FOURTH CREEK TRIBUTARY 4** | | | | |
| 008 | 800 | 524 | 707.7[4] | 39 / 13 |
| 011 | 1,073 | 524 | 707.7[4] | 13 / 14 |
| 013 | 1,314 | 524 | 707.7[4] | 13 / 14 |
| 018 | 1,793 | 524 | 710.6 | 23 / 15 |
| 021 | 2,120 | 524 | 710.7 | 13 / 37 |
| 024 | 2,422 | 425 | 711.0 | 15 / 24 |
| **FOURTH CREEK TRIBUTARY 5** | | | | |
| 007 | 680 | 1,501 | 709.4[4] | 9 / 251 |
| 010 | 1,005 | 1,501 | 709.4[4] | 13 / 198 |
| 015 | 1,500 | 1,501 | 709.4[4] | 34 / 98 |
| 020 | 2,000 | 1,501 | 709.4[4] | 88 / 17 |
| 025 | 2,500 | 1,501 | 709.4[4] | 88 / 15 |
| 030 | 3,000 | 1,352 | 709.4[4] | 127 / 9 |
| 035 | 3,500 | 1,352 | 709.4[4] | 158 / 9 |
| 038 | 3,764 | 1,352 | 709.4[4] | 114 / 43 |
| 040 | 4,035 | 1,352 | 709.4[4] | 11 / 11 |
| 044 | 4,377 | 1,352 | 712.5 | 114 / 43 |
| 045 | 4,500 | 1,352 | 712.5 | 100 / 74 |
| **GRANTS CREEK TRIBUTARY 2** | | | | |
| 007 | 675 | 812 | 674.2[4] | 92 / 23 |
| 012 | 1,186 | 812 | 676.2 | 23 / 20 |
| 017 | 1,712 | 786 | 683.1 | 26 / 20 |
| 023 | 2,327 | 763 | 687.8 | 11 / 89 |
| **GRANTS CREEK TRIBUTARY 3** | | | | |
| 006 | 595 | 1,204 | 676.9[4] | 32 / 50 |
| 011 | 1,078 | 1,194 | 676.9[4] | 38 / 46 |
| 014 | 1,430 | 1,194 | 676.9[4] | 32 / 32 |
| 019 | 1,909 | 1,194 | 678.8 | 16 / 130 |
| 023 | 2,317 | 1,159 | 680.2 | 15 / 35 |
| **GRANTS CREEK TRIBUTARY 4** | | | | |
| 007 | 654 | 933 | 679.9[4] | 203 / 114 |
| 010 | 1,042 | 933 | 679.9[4] | 250 / 32 |
| 015 | 1,531 | 933 | 679.9[4] | 102 / 32 |
| 021 | 2,061 | 890 | 680.8 | 57 / 66 |
| 025 | 2,505 | 890 | 683.4 | 32 / 32 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **GRANTS CREEK TRIBUTARY 4** | | | | |
| 030 | 3,019 | 878 | 687.2 | 62 / 32 |
| 034 | 3,379 | 878 | 688.9 | 40 / 32 |
| 034 | 3,371 | 641 | 742.8 | 26 / 12 |
| 036 | 3,552 | 641 | 744.7 | 11 / 12 |
| 038 | 3,763 | 641 | 749.5 | 17 / 4 |
| 040 | 3,997 | 641 | 753.5 | 18 / 21 |
| 043 | 4,273 | 641 | 756.9 | 12 / 38 |
| 045 | 4,497 | 641 | 760.0 | 23 / 12 |
| **IRISH BUFFALO CREEK TRIBUTARY 4** | | | | |
| 034 | 3,371 | 641 | 742.8 | 26 / 12 |
| 036 | 3,552 | 641 | 744.7 | 11 / 12 |
| 038 | 3,763 | 641 | 749.5 | 17 / 4 |
| 040 | 3,997 | 641 | 753.5 | 18 / 21 |
| 043 | 4,273 | 641 | 756.9 | 12 / 38 |
| 045 | 4,497 | 641 | 760.0 | 23 / 12 |
| **IRISH BUFFALO CREEK TRIBUTARY 5** | | | | |
| 032 | 3,157 | 545 | 746.7 | 73 / 44 |
| 033 | 3,319 | 545 | 746.7 | 62 / 43 |
| 035 | 3,466 | 545 | 747.7 | 50 / 10 |
| 036 | 3,628 | 545 | 749.3 | 25 / 50 |
| 038 | 3,754 | 545 | 749.8 | 15 / 40 |
| 039 | 3,925 | 545 | 751.2 | 25 / 28 |
| 041 | 4,083 | 545 | 752.2 | 25 / 14 |
| **JUMP AND RUN BRANCH** | | | | |
| 004 | 433 | 1,615 | 658.4[4] | 144 / 110 |
| 009 | 929 | 1,615 | 658.4[4] | 76 / 23 |
| 015 | 1,462 | 1,615 | 658.4[4] | 180 / 89 |
| 017 | 1,700 | 1,615 | 658.4[4] | 119 / 21 |
| 020 | 1,977 | 1,615 | 658.4[4] | 52 / 21 |
| 027 | 2,655 | 1,550 | 660.0 | 21 / 102 |
| 033 | 3,290 | 1,550 | 662.9 | 20 / 23 |
| 040 | 3,989 | 1,525 | 664.6 | 196 / 27 |
| 043 | 4,319 | 1,525 | 665.3 | 20 / 8 |
| 050 | 4,998 | 1,336 | 669.0 | 15 / 52 |
| 055 | 5,497 | 1,336 | 671.4 | 7 / 35 |
| 064 | 6,388 | 1,268 | 677.4 | 13 / 23 |
| 070 | 6,961 | 1,092 | 681.0 | 158 / 12 |
| 073 | 7,338 | 1,092 | 682.2 | 147 / 12 |
| 076 | 7,552 | 1,028 | 682.8 | 50 / 97 |
| 078 | 7,820 | 1,028 | 684.0 | 14 / 12 |
| 082 | 8,239 | 1,028 | 687.9 | 71 / 12 |
| 085 | 8,480 | 972 | 690.0 | 52 / 27 |
| 087 | 8,701 | 972 | 692.6 | 12 / 51 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **JUMP AND RUN BRANCH** | | | | |
| 090 | 9,013 | 972 | 695.9 | 23 / 12 |
| 094 | 9,394 | 972 | 700.5 | 46 / 59 |
| 099 | 9,882 | 958 | 701.2 | 93 / 12 |
| 103 | 10,281 | 958 | 703.2 | 91 / 12 |
| 107 | 10,691 | 862 | 705.3 | 73 / 18 |
| 113 | 11,293 | 862 | 708.6 | 12 / 57 |
| 118 | 11,781 | 816 | 711.3 | 72 / 12 |
| 123 | 12,336 | 771 | 714.1 | 14 / 12 |
| 131 | 13,118 | 755 | 720.9 | 46 / 18 |
| 136 | 13,629 | 755 | 726.9 | 15 / 12 |
| 140 | 14,006 | 643 | 728.7 | 49 / 12 |
| 144 | 14,438 | 643 | 730.7 | 17 / 11 |
| 149 | 14,900 | 565 | 733.5 | 17 / 12 |
| 152 | 15,212 | 565 | 736.4 | 51 / 12 |
| 157 | 15,659 | 448 | 740.3 | 12 / 12 |
| 160 | 15,980 | 448 | 746.9 | 30 / 12 |
| 163 | 16,285 | 448 | 750.8 | 12 / 22 |
| 169 | 16,895 | 448 | 763.4 | 12 / 12 |
| **KERR CREEK** | | | | |
| 007 | 745 | 3,509 | 680.4[4] | 165 / 21 |
| 009 | 898 | 3,509 | 680.4[4] | 220 / 21 |
| 015 | 1,511 | 3,509 | 681.1 | 180 / 224 |
| 020 | 2,024 | 3,509 | 681.6 | 246 / 21 |
| 023 | 2,348 | 3,509 | 682.1 | 177 / 21 |
| 028 | 2,815 | 3,509 | 683.2 | 250 / 21 |
| 040 | 4,003 | 3,509 | 686.0 | 150 / 50 |
| 045 | 4,493 | 3,509 | 686.6 | 193 / 217 |
| 050 | 5,000 | 3,509 | 687.2 | 282 / 66 |
| 053 | 5,330 | 3,509 | 687.7 | 189 / 21 |
| 057 | 5,748 | 3,509 | 689.2 | 166 / 90 |
| 062 | 6,226 | 3,509 | 690.1 | 52 / 78 |
| 069 | 6,901 | 3,509 | 692.5 | 21 / 186 |
| 075 | 7,519 | 3,314 | 693.7 | 222 / 94 |
| 085 | 8,504 | 3,314 | 696.3 | 210 / 230 |
| 091 | 9,137 | 3,314 | 699.4 | 119 / 120 |
| 096 | 9,629 | 3,314 | 699.4 | 70 / 100 |
| 100 | 10,000 | 3,314 | 699.7 | 154 / 173 |
| 104 | 10,420 | 3,123 | 699.5 | 115 / 66 |
| 111 | 11,137 | 3,123 | 701.7 | 192 / 20 |
| 115 | 11,495 | 3,123 | 702.3 | 165 / 20 |
| 118 | 11,764 | 3,123 | 702.7 | 123 / 84 |
| 122 | 12,212 | 3,123 | 703.6 | 40 / 60 |
| 127 | 12,726 | 3,123 | 706.1 | 160 / 106 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| KERR CREEK | | | | |
| 135 | 13,497 | 3,123 | 707.5 | 119 / 192 |
| 140 | 13,998 | 3,123 | 707.9 | 155 / 37 |
| 143 | 14,289 | 3,123 | 708.1 | 168 / 20 |
| 150 | 14,994 | 2,919 | 709.4 | 198 / 100 |
| 153 | 15,333 | 2,919 | 709.6 | 182 / 69 |
| 155 | 15,498 | 2,919 | 709.5 | 80 / 50 |
| 158 | 15,814 | 2,919 | 710.3 | 19 / 45 |
| 162 | 16,177 | 2,919 | 712.0 | 42 / 50 |
| 165 | 16,497 | 2,919 | 712.6 | 70 / 104 |
| 170 | 17,000 | 2,919 | 712.8 | 100 / 99 |
| 175 | 17,515 | 2,919 | 715.5 | 55 / 65 |
| 178 | 17,793 | 2,919 | 716.0 | 160 / 19 |
| 182 | 18,242 | 2,919 | 717.9 | 71 / 80 |
| 185 | 18,490 | 2,919 | 718.4 | 25 / 50 |
| 190 | 18,999 | 2,713 | 719.3 | 13 / 30 |
| 200 | 19,998 | 2,713 | 722.6 | 50 / 50 |
| 203 | 20,342 | 2,713 | 723.0 | 40 / 35 |
| 210 | 20,996 | 2,713 | 724.7 | 54 / 98 |
| 215 | 21,515 | 2,486 | 726.2 | 35 / 65 |
| 220 | 21,999 | 2,486 | 727.0 | 18 / 35 |
| 226 | 22,629 | 2,486 | 728.9 | 18 / 55 |
| 230 | 22,993 | 2,486 | 730.0 | 18 / 29 |
| 235 | 23,493 | 2,486 | 731.8 | 18 / 75 |
| 240 | 24,001 | 2,486 | 733.6 | 23 / 75 |
| 243 | 24,315 | 2,486 | 733.9 | 17 / 22 |
| 250 | 25,041 | 2,230 | 737.4 | 10 / 35 |
| 255 | 25,543 | 2,230 | 741.4 | 45 / 43 |
| 257 | 25,700 | 2,230 | 742.6 | 59 / 13 |
| 260 | 26,015 | 2,230 | 747.3 | 8 / 35 |
| 263 | 26,275 | 2,230 | 750.7 | 18 / 63 |
| 265 | 26,502 | 2,230 | 751.2 | 35 / 98 |
| 270 | 27,003 | 2,230 | 752.5 | 65 / 64 |
| 275 | 27,501 | 1,823 | 753.8 | 110 / 43 |
| 280 | 28,014 | 1,823 | 755.0 | 40 / 40 |
| 285 | 28,499 | 1,823 | 756.8 | 16 / 103 |
| 290 | 29,013 | 1,823 | 758.8 | 16 / 70 |
| 295 | 29,516 | 1,202 | 761.0 | 14 / 136 |
| 300 | 30,004 | 1,202 | 762.8 | 72 / 20 |
| 305 | 30,511 | 1,202 | 765.5 | 65 / 23 |
| 310 | 31,013 | 1,202 | 767.9 | 30 / 25 |
| 315 | 31,500 | 1,202 | 770.0 | 31 / 69 |
| 325 | 32,503 | 1,202 | 778.2 | 85 / 25 |
| 331 | 33,116 | 906 | 778.6 | 70 / 50 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **KERR CREEK** | | | | |
| 335 | 33,480 | 906 | 779.7 | 30 / 35 |
| 339 | 33,856 | 906 | 781.4 | 12 / 17 |
| 342 | 34,175 | 651 | 783.3 | 16 / 12 |
| 345 | 34,518 | 651 | 785.3 | 12 / 11 |
| 350 | 35,000 | 651 | 790.1 | 5 / 10 |
| 353 | 35,335 | 651 | 791.3 | 12 / 12 |
| 358 | 35,783 | 651 | 795.1 | 6 / 16 |
| 360 | 36,011 | 651 | 798.6 | 12 / 12 |
| 365 | 36,504 | 651 | 802.1 | 12 / 17 |
| 368 | 36,807 | 488 | 804.1 | 10 / 18 |
| 369 | 36,929 | 488 | 805.5 | 10 / 7 |
| 372 | 37,210 | 488 | 810.5 | 13 / 18 |
| 374 | 37,366 | 488 | 813.3 | 5 / 12 |
| 375 | 37,499 | 488 | 814.1 | 8 / 8 |
| 377 | 37,696 | 488 | 817.4 | 20 / 10 |
| 380 | 37,999 | 488 | 819.5 | 4 / 12 |
| 382 | 38,224 | 488 | 822.9 | 4 / 15 |
| 385 | 38,481 | 488 | 826.6 | 6 / 11 |
| 389 | 38,887 | 488 | 835.8 | 140 / 54 |
| 390 | 38,995 | 488 | 835.8 | 110 / 51 |
| 393 | 39,331 | 488 | 837.7 | 8 / 30 |
| 395 | 39,530 | 488 | 841.1 | 51 / 12 |
| 397 | 39,712 | 488 | 842.8 | 17 / 12 |
| 399 | 39,867 | 488 | 845.0 | 41 / 10 |
| **LITTLE CREEK (SOUTH)** | | | | |
| 008 | 800 | 1,630 | 719.8[4] | 15 / 193 |
| 012 | 1,190 | 1,630 | 720.0 | 117 / 86 |
| 017 | 1,650 | 1,630 | 721.1 | 69 / 46 |
| 020 | 2,037 | 1,630 | 723.1 | 86 / 97 |
| 025 | 2,502 | 1,630 | 724.5 | 134 / 29 |
| 029 | 2,913 | 1,630 | 725.6 | 142 / 25 |
| 034 | 3,414 | 1,630 | 727.0 | 174 / 12 |
| 038 | 3,824 | 1,630 | 728.4 | 133 / 15 |
| 043 | 4,316 | 1,448 | 730.4 | 129 / 14 |
| 048 | 4,822 | 1,448 | 732.9 | 102 / 14 |
| 054 | 5,409 | 1,448 | 735.7 | 31 / 73 |
| 057 | 5,699 | 1,448 | 736.3 | 78 / 40 |
| 060 | 6,000 | 1,448 | 737.0 | 143 / 14 |
| 064 | 6,366 | 1,448 | 737.7 | 128 / 14 |
| 068 | 6,800 | 1,448 | 738.8 | 14 / 193 |
| 072 | 7,200 | 1,448 | 739.8 | 20 / 138 |
| 076 | 7,627 | 1,278 | 742.7 | 100 / 41 |
| 080 | 8,000 | 1,278 | 743.8 | 104 / 14 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **LITTLE CREEK (SOUTH)** | | | | |
| 084 | 8,400 | 1,278 | 745.5 | 110 / 14 |
| 087 | 8,710 | 1,278 | 746.9 | 94 / 14 |
| 090 | 9,012 | 1,278 | 748.2 | 47 / 14 |
| **MILL CREEK** | | | | |
| 252 | 25,154 | 1,688 | 713.6 | 20 / 70 |
| 255 | 25,546 | 1,688 | 715.4 | 60 / 35 |
| 263 | 26,262 | 1,688 | 718.7 | 25 / 35 |
| 268 | 26,767 | 1,688 | 721.0 | 13 / 17 |
| 271 | 27,120 | 1,688 | 724.3 | 25 / 32 |
| 276 | 27,600 | 1,688 | 726.3 | 65 / 22 |
| 283 | 28,295 | 1,353 | 729.3 | 15 / 60 |
| 287 | 28,683 | 1,353 | 731.1 | 19 / 21 |
| 293 | 29,273 | 1,353 | 734.5 | 13 / 50 |
| 297 | 29,736 | 1,353 | 736.5 | 50 / 40 |
| 302 | 30,187 | 1,353 | 738.0 | 80 / 18 |
| 307 | 30,742 | 1,353 | 741.6 | 15 / 55 |
| 311 | 31,143 | 1,353 | 743.1 | 12 / 34 |
| 317 | 31,691 | 1,353 | 747.4 | 13 / 30 |
| 320 | 32,040 | 1,016 | 750.1 | 24 / 10 |
| 321 | 32,123 | 1,016 | 750.7 | 25 / 10 |
| 322 | 32,192 | 1,016 | 751.2 | 22 / 6 |
| 325 | 32,476 | 1,016 | 757.1 | 72 / 16 |
| 329 | 32,944 | 1,016 | 759.2 | 34 / 12 |
| 334 | 33,352 | 1,016 | 763.0 | 50 / 9 |
| 342 | 34,249 | 1,016 | 768.6 | 45 / 55 |
| 349 | 34,865 | 820 | 771.9 | 20 / 31 |
| 357 | 35,685 | 820 | 780.0 | 30 / 10 |
| 364 | 36,429 | 820 | 783.3 | 22 / 22 |
| 367 | 36,733 | 820 | 784.8 | 35 / 8 |
| 372 | 37,176 | 820 | 788.4 | 35 / 22 |
| 376 | 37,600 | 664 | 792.9 | 12 / 30 |
| 381 | 38,109 | 664 | 798.5 | 20 / 20 |
| 383 | 38,264 | 664 | 798.7 | 20 / 30 |
| **NORTH SECOND CREEK** | | | | |
| 015 | 1,500 | 12,683 | 650.9[4] | 1,150 / 172 |
| 020 | 2,000 | 12,683 | 650.9[4] | 1,240 / 41 |
| 025 | 2,500 | 12,683 | 650.9[4] | 938 / 315 |
| 030 | 3,000 | 12,683 | 650.9[4] | 900 / 316 |
| 035 | 3,500 | 12,683 | 650.9[4] | 826 / 240 |
| 040 | 4,000 | 12,683 | 650.9[4] | 580 / 201 |
| 045 | 4,500 | 12,683 | 650.9[4] | 509 / 256 |
| 050 | 5,003 | 12,683 | 650.9[4] | 449 / 191 |
| 054 | 5,393 | 12,683 | 650.9[4] | 300 / 272 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| NORTH SECOND CREEK | | | | |
| 058 | 5,801 | 12,683 | 650.9[4] | 170 / 248 |
| 061 | 6,142 | 12,683 | 650.9[4] | 300 / 171 |
| 065 | 6,500 | 12,683 | 650.9[4] | 423 / 115 |
| 070 | 7,000 | 12,683 | 650.9[4] | 431 / 303 |
| 074 | 7,389 | 12,683 | 650.9[4] | 480 / 133 |
| 082 | 8,175 | 12,683 | 650.9[4] | 166 / 404 |
| 085 | 8,450 | 12,683 | 650.9[4] | 166 / 451 |
| 090 | 9,000 | 12,683 | 650.9[4] | 255 / 371 |
| 095 | 9,500 | 12,683 | 650.9[4] | 100 / 421 |
| 100 | 10,000 | 12,683 | 650.9[4] | 192 / 278 |
| 105 | 10,500 | 12,683 | 650.9[4] | 94 / 246 |
| 110 | 11,000 | 12,683 | 650.9[4] | 228 / 201 |
| 115 | 11,500 | 12,683 | 650.9[4] | 260 / 401 |
| 120 | 11,967 | 12,683 | 650.9[4] | 241 / 316 |
| 125 | 12,500 | 12,683 | 650.9[4] | 399 / 191 |
| 130 | 13,000 | 12,683 | 650.9[4] | 328 / 126 |
| 135 | 13,500 | 12,683 | 650.9[4] | 525 / 40 |
| 140 | 13,977 | 12,683 | 650.9[4] | 463 / 54 |
| 145 | 14,500 | 12,683 | 650.9[4] | 467 / 51 |
| 150 | 15,000 | 12,683 | 650.9[4] | 342 / 351 |
| 155 | 15,500 | 12,683 | 650.9[4] | 64 / 637 |
| 161 | 16,144 | 12,683 | 650.9[4] | 46 / 643 |
| 165 | 16,500 | 12,683 | 650.9[4] | 130 / 657 |
| 170 | 17,000 | 12,683 | 650.9[4] | 104 / 668 |
| 175 | 17,500 | 12,683 | 650.9[4] | 32 / 950 |
| 180 | 18,000 | 12,683 | 650.9[4] | 168 / 876 |
| 185 | 18,500 | 12,683 | 650.9[4] | 159 / 1,007 |
| 190 | 19,000 | 12,683 | 650.9[4] | 145 / 1,000 |
| 195 | 19,500 | 12,683 | 650.9[4] | 40 / 1,066 |
| 200 | 20,000 | 12,683 | 650.9[4] | 58 / 1,124 |
| 205 | 20,500 | 12,683 | 650.9[4] | 492 / 530 |
| 210 | 21,000 | 12,683 | 650.9[4] | 836 / 253 |
| 215 | 21,500 | 12,683 | 650.9[4] | 897 / 160 |
| 220 | 22,000 | 12,683 | 650.9[4] | 842 / 118 |
| 225 | 22,500 | 12,683 | 650.9[4] | 728 / 64 |
| 230 | 23,000 | 12,683 | 650.9[4] | 662 / 40 |
| 235 | 23,500 | 12,683 | 650.9[4] | 541 / 29 |
| 238 | 23,821 | 12,683 | 650.9[4] | 329 / 81 |
| 240 | 24,000 | 12,683 | 650.9[4] | 467 / 36 |
| 245 | 24,500 | 11,844 | 650.9[4] | 352 / 102 |
| 250 | 25,000 | 11,844 | 650.9[4] | 436 / 100 |
| 255 | 25,500 | 11,844 | 650.9[4] | 339 / 273 |
| 260 | 26,000 | 11,844 | 650.9[4] | 344 / 251 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| NORTH SECOND CREEK | | | | |
| 264 | 26,420 | 11,844 | 650.9[4] | 271 / 222 |
| 271 | 27,077 | 11,844 | 653.9 | 152 / 260 |
| 273 | 27,287 | 11,844 | 654.0 | 103 / 431 |
| 277 | 27,659 | 11,844 | 654.2 | 132 / 500 |
| 280 | 28,000 | 11,844 | 654.3 | 324 / 450 |
| 285 | 28,500 | 11,844 | 654.4 | 542 / 213 |
| 288 | 28,765 | 11,844 | 654.4 | 689 / 31 |
| 290 | 29,000 | 11,844 | 654.4 | 545 / 278 |
| 295 | 29,500 | 11,844 | 654.6 | 338 / 304 |
| 300 | 30,000 | 10,745 | 655.0 | 384 / 283 |
| 310 | 31,000 | 10,745 | 655.3 | 569 / 298 |
| 315 | 31,500 | 10,745 | 655.4 | 549 / 350 |
| 318 | 31,825 | 10,745 | 655.5 | 546 / 320 |
| 322 | 32,159 | 10,745 | 655.5 | 481 / 195 |
| 324 | 32,400 | 10,745 | 655.8 | 538 / 307 |
| 325 | 32,542 | 10,745 | 656.0 | 550 / 351 |
| 330 | 33,000 | 10,745 | 656.1 | 483 / 404 |
| 335 | 33,500 | 10,745 | 656.2 | 549 / 351 |
| 340 | 34,000 | 10,745 | 656.2 | 450 / 501 |
| 345 | 34,500 | 10,745 | 656.3 | 499 / 509 |
| 347 | 34,709 | 10,745 | 656.4 | 634 / 481 |
| 350 | 35,000 | 10,745 | 656.5 | 708 / 301 |
| 354 | 35,405 | 10,745 | 656.6 | 927 / 34 |
| 356 | 35,634 | 10,745 | 656.7 | 515 / 267 |
| 360 | 36,000 | 10,745 | 656.8 | 156 / 459 |
| 362 | 36,191 | 10,745 | 656.8 | 81 / 386 |
| 364 | 36,354 | 10,745 | 657.1 | 138 / 218 |
| 368 | 36,808 | 10,745 | 657.7 | 388 / 146 |
| 370 | 37,000 | 10,745 | 657.9 | 470 / 139 |
| 375 | 37,500 | 10,745 | 658.2 | 349 / 350 |
| 380 | 38,000 | 10,745 | 658.4 | 264 / 546 |
| 385 | 38,500 | 10,745 | 658.6 | 310 / 387 |
| 390 | 39,000 | 10,745 | 658.9 | 579 / 105 |
| 395 | 39,500 | 10,745 | 659.2 | 599 / 174 |
| 400 | 40,000 | 10,745 | 659.3 | 591 / 147 |
| 405 | 40,500 | 10,745 | 659.6 | 388 / 182 |
| 415 | 41,500 | 10,130 | 661.3 | 449 / 151 |
| 420 | 42,000 | 10,130 | 661.5 | 540 / 44 |
| 428 | 42,834 | 10,130 | 662.5 | 500 / 26 |
| 430 | 43,000 | 10,130 | 662.5 | 510 / 47 |
| 435 | 43,500 | 10,130 | 662.7 | 484 / 46 |
| 439 | 43,911 | 10,130 | 662.8 | 289 / 139 |
| 445 | 44,500 | 10,130 | 662.7 | 107 / 129 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **NORTH SECOND CREEK** | | | | |
| 450 | 45,000 | 10,130 | 663.4 | 46 / 151 |
| 455 | 45,540 | 10,130 | 663.8 | 325 / 96 |
| 460 | 46,000 | 10,130 | 664.5 | 457 / 66 |
| 465 | 46,500 | 10,130 | 664.8 | 590 / 46 |
| 470 | 47,000 | 10,130 | 665.0 | 585 / 46 |
| 475 | 47,500 | 10,112 | 665.3 | 597 / 267 |
| 480 | 48,000 | 8,780 | 665.3 | 646 / 293 |
| 485 | 48,500 | 8,780 | 665.4 | 951 / 185 |
| 490 | 49,025 | 8,780 | 665.4 | 980 / 247 |
| 495 | 49,500 | 8,780 | 665.5 | 910 / 150 |
| 500 | 50,000 | 8,780 | 665.5 | 388 / 180 |
| 501 | 50,147 | 8,780 | 665.6 | 249 / 250 |
| 507 | 50,744 | 8,780 | 668.1 | 362 / 39 |
| 511 | 51,080 | 8,780 | 668.2 | 380 / 219 |
| 515 | 51,500 | 8,780 | 668.3 | 324 / 356 |
| 520 | 52,000 | 8,780 | 668.4 | 303 / 357 |
| 525 | 52,500 | 8,780 | 668.4 | 267 / 505 |
| 530 | 53,000 | 8,593 | 668.6 | 207 / 539 |
| 535 | 53,500 | 8,593 | 668.8 | 280 / 326 |
| 539 | 53,853 | 8,593 | 668.8 | 285 / 168 |
| 544 | 54,406 | 8,593 | 669.6 | 69 / 270 |
| 550 | 55,000 | 8,593 | 670.5 | 289 / 160 |
| 555 | 55,500 | 8,593 | 671.0 | 307 / 150 |
| 560 | 56,000 | 8,593 | 671.5 | 296 / 168 |
| 565 | 56,500 | 8,593 | 671.8 | 161 / 152 |
| 567 | 56,716 | 8,593 | 672.0 | 48 / 127 |
| **PARK CREEK** | | | | |
| 092 | 9,191 | 1,920 | 678.5 | 109 / 12 |
| 096 | 9,629 | 1,920 | 679.9 | 105 / 21 |
| 099 | 9,925 | 1,920 | 681.2 | 11 / 58 |
| 105 | 10,501 | 1,785 | 684.0 | 23 / 100 |
| 111 | 11,129 | 1,785 | 686.0 | 25 / 31 |
| 116 | 11,629 | 1,785 | 688.9 | 22 / 49 |
| 121 | 12,129 | 1,785 | 691.6 | 53 / 72 |
| 126 | 12,612 | 1,785 | 693.7 | 57 / 60 |
| 131 | 13,129 | 1,785 | 695.6 | 11 / 54 |
| 136 | 13,629 | 1,507 | 698.4 | 19 / 140 |
| 141 | 14,129 | 1,507 | 699.6 | 13 / 117 |
| 144 | 14,385 | 1,507 | 701.0 | 27 / 72 |
| 148 | 14,750 | 1,507 | 702.7 | 111 / 28 |
| 152 | 15,222 | 1,507 | 705.8 | 45 / 9 |
| 156 | 15,629 | 1,507 | 708.6 | 10 / 85 |
| 159 | 15,902 | 1,507 | 709.7 | 21 / 42 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **PARK CREEK** | | | | |
| 161 | 16,120 | 1,507 | 714.9 | 8 / 27 |
| 163 | 16,313 | 1,507 | 722.0 | 20 / 22 |
| 166 | 16,629 | 1,507 | 732.2 | 25 / 12 |
| 168 | 16,849 | 1,366 | 738.2 | 14 / 23 |
| 172 | 17,171 | 1,366 | 742.1 | 23 / 34 |
| 180 | 18,039 | 1,366 | 747.7 | 14 / 119 |
| 184 | 18,380 | 1,366 | 749.4 | 45 / 70 |
| 186 | 18,634 | 1,366 | 750.5 | 9 / 83 |
| 188 | 18,845 | 1,366 | 751.2 | 14 / 54 |
| 192 | 19,152 | 1,366 | 753.7 | 18 / 68 |
| 196 | 19,634 | 1,198 | 755.6 | 42 / 69 |
| 199 | 19,880 | 1,198 | 756.2 | 32 / 35 |
| 201 | 20,089 | 1,198 | 756.8 | 20 / 70 |
| 204 | 20,359 | 1,198 | 758.0 | 11 / 60 |
| 206 | 20,618 | 1,198 | 759.7 | 6 / 106 |
| 211 | 21,139 | 1,198 | 761.8 | 13 / 34 |
| 217 | 21,680 | 1,198 | 764.9 | 30 / 12 |
| 221 | 22,137 | 1,198 | 767.6 | 176 / 9 |
| 226 | 22,640 | 1,198 | 769.8 | 96 / 8 |
| 231 | 23,148 | 1,052 | 772.5 | 31 / 12 |
| 236 | 23,638 | 1,052 | 775.0 | 22 / 12 |
| 241 | 24,128 | 1,052 | 777.7 | 20 / 17 |
| 246 | 24,640 | 1,052 | 780.9 | 21 / 13 |
| 247 | 24,740 | 1,052 | 781.6 | 30 / 8 |
| 251 | 25,136 | 1,052 | 785.4 | 15 / 7 |
| 261 | 26,083 | 597 | 792.1 | 14 / 29 |
| 266 | 26,643 | 597 | 793.7 | 10 / 8 |
| 271 | 27,120 | 597 | 800.0 | 13 / 7 |
| 274 | 27,420 | 597 | 803.2 | 9 / 30 |
| 276 | 27,602 | 597 | 803.9 | 10 / 10 |
| 281 | 28,110 | 514 | 810.1 | 21 / 5 |
| **PEELER BRANCH** | | | | |
| 001 | 91 | 1,132 | 656.2[4] | 11 / 10 |
| 004 | 370 | 1,132 | 658.2 | 13 / 7 |
| 006 | 576 | 1,132 | 664.0 | 11 / 26 |
| 008 | 794 | 1,132 | 668.3 | 15 / 21 |
| 010 | 958 | 1,132 | 671.8 | 17 / 14 |
| 014 | 1,357 | 1,132 | 679.3 | 10 / 20 |
| 018 | 1,845 | 1,132 | 685.1 | 19 / 42 |
| 025 | 2,534 | 1,132 | 689.4 | 25 / 35 |
| 029 | 2,910 | 1,132 | 691.0 | 10 / 45 |
| 034 | 3,448 | 1,132 | 694.6 | 56 / 8 |
| 041 | 4,101 | 904 | 698.2 | 9 / 88 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **PEELER BRANCH** | | | | |
| 045 | 4,498 | 904 | 701.0 | 99 / 38 |
| 050 | 4,979 | 904 | 703.6 | 10 / 70 |
| 056 | 5,554 | 904 | 707.1 | 30 / 10 |
| 060 | 6,016 | 904 | 711.1 | 22 / 37 |
| 063 | 6,272 | 904 | 711.3 | 10 / 15 |
| **RILES CREEK** | | | | |
| 017 | 1,729 | 6,259 | 571.6[4] | 237 / 223 |
| 024 | 2,372 | 6,259 | 571.6[4] | 133 / 299 |
| 030 | 2,963 | 6,259 | 571.6[4] | 229 / 296 |
| 037 | 3,718 | 6,259 | 571.6[4] | 237 / 94 |
| 042 | 4,196 | 6,259 | 571.6[4] | 229 / 296 |
| 049 | 4,872 | 6,259 | 571.6[4] | 307 / 307 |
| 057 | 5,656 | 5,975 | 571.6[4] | 328 / 296 |
| 063 | 6,302 | 5,975 | 571.6[4] | 170 / 108 |
| 068 | 6,836 | 5,975 | 571.6[4] | 128 / 155 |
| 075 | 7,492 | 5,975 | 571.6[4] | 179 / 199 |
| 081 | 8,065 | 5,975 | 571.6[4] | 109 / 204 |
| 087 | 8,691 | 5,975 | 571.6[4] | 160 / 145 |
| 092 | 9,209 | 5,975 | 571.6[4] | 114 / 173 |
| 099 | 9,926 | 5,975 | 571.6[4] | 292 / 279 |
| 105 | 10,461 | 5,975 | 571.6[4] | 283 / 346 |
| 110 | 10,994 | 5,975 | 571.6[4] | 274 / 225 |
| 119 | 11,857 | 5,975 | 571.6[4] | 306 / 502 |
| **ROCKY BRANCH TRIBUTARY 1** | | | | |
| 001 | 95 | 603 | 648.9[4] | 11 / 5 |
| 005 | 468 | 603 | 654.6 | 7 / 37 |
| 012 | 1,222 | 590 | 669.5 | 32 / 32 |
| 019 | 1,869 | 549 | 681.6 | 4 / 40 |
| 029 | 2,918 | 430 | 701.7 | 12 / 15 |
| 032 | 3,162 | 418 | 707.5 | 30 / 45 |
| **SECOND CREEK** | | | | |
| 037 | 3,731 | 9,014 | 625.5[4] | 1,107 / 1,287 |
| 053 | 5,297 | 9,014 | 625.5[4] | 779 / 599 |
| 067 | 6,731 | 9,014 | 625.5[4] | 505 / 766 |
| 078 | 7,752 | 9,014 | 625.5[4] | 444 / 666 |
| 088 | 8,836 | 9,014 | 625.5[4] | 774 / 588 |
| 096 | 9,591 | 9,014 | 625.5[4] | 570 / 524 |
| 109 | 10,937 | 9,014 | 625.5[4] | 556 / 465 |
| 129 | 12,946 | 9,014 | 625.5[4] | 921 / 694 |
| 141 | 14,059 | 7,963 | 625.5[4] | 1,072 / 1,373 |
| 150 | 14,973 | 7,963 | 625.5[4] | 1,337 / 1,418 |
| 162 | 16,194 | 7,767 | 625.5[4] | 1,202 / 925 |
| 175 | 17,469 | 7,767 | 625.5[4] | 692 / 1,044 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| SECOND CREEK | | | | |
| 184 | 18,432 | 7,767 | 625.5[4] | 993 / 938 |
| 195 | 19,538 | 7,767 | 625.5[4] | 613 / 783 |
| 208 | 20,807 | 7,531 | 625.5[4] | 657 / 720 |
| 220 | 22,013 | 7,531 | 625.5[4] | 446 / 425 |
| 227 | 22,651 | 7,531 | 625.5[4] | 362 / 376 |
| 234 | 23,362 | 7,531 | 625.5[4] | 460 / 535 |
| 240 | 23,962 | 7,531 | 625.5[4] | 674 / 606 |
| 248 | 24,801 | 7,531 | 625.5[4] | 253 / 430 |
| 256 | 25,607 | 7,531 | 625.5[4] | 337 / 439 |
| 262 | 26,170 | 7,531 | 625.5[4] | 247 / 297 |
| 268 | 26,828 | 7,531 | 625.5[4] | 255 / 246 |
| 280 | 27,973 | 6,771 | 625.5[4] | 291 / 365 |
| 285 | 28,477 | 6,771 | 625.5[4] | 219 / 222 |
| 291 | 29,071 | 6,771 | 625.5[4] | 252 / 146 |
| 295 | 29,473 | 6,771 | 625.5[4] | 220 / 89 |
| 301 | 30,077 | 6,771 | 625.5[4] | 220 / 145 |
| 306 | 30,591 | 6,771 | 625.6 | 220 / 53 |
| 311 | 31,103 | 6,771 | 628.1 | 53 / 205 |
| 315 | 31,467 | 6,771 | 628.9 | 82 / 220 |
| 320 | 31,968 | 6,771 | 629.5 | 291 / 318 |
| 323 | 32,286 | 6,771 | 629.6 | 353 / 81 |
| 328 | 32,803 | 6,771 | 629.8 | 353 / 81 |
| 335 | 33,496 | 6,771 | 630.2 | 297 / 53 |
| 340 | 33,953 | 6,771 | 630.6 | 261 / 53 |
| 345 | 34,534 | 6,771 | 631.1 | 227 / 74 |
| 350 | 35,025 | 6,771 | 631.7 | 53 / 254 |
| 355 | 35,457 | 6,771 | 632.3 | 27 / 395 |
| 359 | 35,898 | 6,771 | 632.8 | 53 / 405 |
| 365 | 36,505 | 6,771 | 633.4 | 232 / 329 |
| 370 | 36,968 | 6,771 | 633.7 | 523 / 225 |
| 375 | 37,454 | 6,771 | 633.9 | 492 / 53 |
| 380 | 38,011 | 6,771 | 634.3 | 222 / 26 |
| 385 | 38,529 | 6,315 | 635.2 | 68 / 107 |
| 390 | 39,033 | 6,315 | 636.2 | 213 / 311 |
| 396 | 39,610 | 6,315 | 636.5 | 288 / 52 |
| 402 | 40,157 | 6,315 | 637.0 | 256 / 52 |
| 405 | 40,515 | 6,315 | 637.2 | 165 / 133 |
| 410 | 40,997 | 6,315 | 637.9 | 52 / 471 |
| 413 | 41,336 | 6,315 | 638.1 | 52 / 446 |
| 425 | 42,479 | 5,599 | 640.6 | 49 / 69 |
| 430 | 43,010 | 5,599 | 641.4 | 46 / 125 |
| 434 | 43,409 | 5,599 | 641.8 | 37 / 117 |
| 439 | 43,948 | 5,599 | 642.5 | 367 / 136 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| SECOND CREEK | | | | |
| 445 | 44,494 | 5,599 | 642.6 | 364 / 256 |
| 450 | 44,978 | 5,599 | 642.8 | 741 / 49 |
| 455 | 45,534 | 5,599 | 643.0 | 750 / 49 |
| 460 | 45,998 | 5,599 | 643.0 | 669 / 49 |
| 465 | 46,494 | 5,599 | 643.2 | 335 / 49 |
| 468 | 46,837 | 5,599 | 643.4 | 130 / 49 |
| 475 | 47,495 | 5,459 | 644.5 | 405 / 61 |
| 480 | 48,026 | 5,459 | 644.9 | 333 / 145 |
| 486 | 48,566 | 5,459 | 645.3 | 49 / 258 |
| 487 | 48,743 | 5,459 | 645.2 | 41 / 136 |
| 492 | 49,153 | 5,459 | 645.6 | 25 / 136 |
| 495 | 49,490 | 5,459 | 646.3 | 41 / 49 |
| 500 | 50,025 | 5,459 | 647.8 | 143 / 81 |
| 504 | 50,366 | 5,459 | 648.2 | 92 / 246 |
| 510 | 51,017 | 5,459 | 648.7 | 327 / 36 |
| 515 | 51,513 | 5,459 | 649.2 | 132 / 81 |
| 519 | 51,876 | 5,459 | 649.6 | 152 / 73 |
| 525 | 52,484 | 5,459 | 650.3 | 30 / 257 |
| 530 | 52,988 | 5,459 | 650.8 | 256 / 49 |
| 534 | 53,448 | 5,459 | 651.1 | 398 / 87 |
| 540 | 53,964 | 5,459 | 651.4 | 320 / 155 |
| 545 | 54,482 | 5,459 | 651.7 | 877 / 81 |
| 551 | 55,066 | 5,090 | 652.0 | 724 / 97 |
| 555 | 55,464 | 5,090 | 652.0 | 204 / 150 |
| 566 | 56,609 | 5,090 | 655.3 | 224 / 70 |
| 570 | 56,993 | 5,090 | 655.5 | 238 / 47 |
| 576 | 57,590 | 5,090 | 655.8 | 383 / 47 |
| 580 | 57,989 | 5,090 | 655.9 | 212 / 47 |
| 585 | 58,457 | 5,090 | 656.2 | 47 / 243 |
| 589 | 58,918 | 5,090 | 656.5 | 47 / 199 |
| 599 | 59,949 | 5,090 | 658.5 | 221 / 97 |
| 606 | 60,633 | 5,090 | 658.9 | 96 / 66 |
| 611 | 61,115 | 5,090 | 659.6 | 141 / 47 |
| 616 | 61,554 | 5,090 | 660.3 | 396 / 75 |
| 623 | 62,327 | 5,090 | 661.8 | 175 / 407 |
| 626 | 62,558 | 5,090 | 661.8 | 47 / 516 |
| 629 | 62,939 | 5,090 | 661.9 | 126 / 322 |
| 633 | 63,270 | 5,090 | 662.0 | 363 / 87 |
| 636 | 63,590 | 5,090 | 662.1 | 376 / 47 |
| 639 | 63,911 | 4,131 | 662.4 | 102 / 222 |
| 644 | 64,365 | 4,131 | 662.9 | 81 / 423 |
| 650 | 64,964 | 4,088 | 663.3 | 99 / 201 |
| 655 | 65,453 | 4,088 | 663.9 | 43 / 76 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| SECOND CREEK | | | | |
| 658 | 65,755 | 4,088 | 665.5 | 464 / 43 |
| 660 | 66,015 | 4,088 | 665.6 | 217 / 100 |
| 665 | 66,493 | 4,088 | 666.3 | 320 / 164 |
| 674 | 67,422 | 3,978 | 669.3 | 345 / 255 |
| 679 | 67,906 | 3,978 | 669.4 | 374 / 43 |
| 686 | 68,602 | 2,993 | 669.7 | 266 / 192 |
| 691 | 69,125 | 2,993 | 670.0 | 40 / 235 |
| 697 | 69,680 | 2,993 | 670.7 | 65 / 150 |
| 700 | 70,011 | 2,993 | 671.4 | 184 / 49 |
| 706 | 70,616 | 2,993 | 672.7 | 104 / 82 |
| 710 | 71,015 | 2,993 | 673.7 | 194 / 106 |
| 716 | 71,613 | 2,993 | 674.4 | 513 / 175 |
| 725 | 72,500 | 2,993 | 677.4 | 40 / 40 |
| 729 | 72,922 | 2,993 | 679.5 | 117 / 40 |
| 735 | 73,469 | 2,633 | 680.5 | 83 / 117 |
| 739 | 73,876 | 2,633 | 680.7 | 39 / 36 |
| 744 | 74,390 | 2,633 | 682.9 | 108 / 148 |
| 749 | 74,887 | 2,633 | 683.6 | 39 / 90 |
| 756 | 75,572 | 2,633 | 685.1 | 207 / 193 |
| 760 | 75,982 | 2,633 | 685.6 | 113 / 39 |
| 765 | 76,502 | 2,633 | 687.0 | 16 / 141 |
| 770 | 76,998 | 2,460 | 689.7 | 38 / 203 |
| 775 | 77,463 | 2,460 | 689.7 | 34 / 38 |
| 780 | 77,999 | 2,460 | 692.7 | 9 / 26 |
| 785 | 78,472 | 2,460 | 697.9 | 38 / 101 |
| 790 | 79,044 | 2,154 | 698.9 | 44 / 203 |
| 795 | 79,456 | 2,154 | 699.1 | 105 / 37 |
| 800 | 79,980 | 2,087 | 701.4 | 67 / 37 |
| 803 | 80,301 | 2,087 | 702.2 | 37 / 37 |
| 809 | 80,938 | 2,087 | 705.6 | 124 / 70 |
| 815 | 81,511 | 2,087 | 707.0 | 125 / 103 |
| 820 | 81,953 | 2,087 | 707.9 | 37 / 43 |
| 829 | 82,911 | 1,517 | 714.0 | 57 / 34 |
| 834 | 83,431 | 1,517 | 716.3 | 120 / 34 |
| 840 | 84,008 | 1,517 | 718.0 | 34 / 34 |
| 845 | 84,503 | 1,517 | 720.6 | 7 / 84 |
| 857 | 85,654 | 1,307 | 724.4 | 37 / 120 |
| 860 | 86,028 | 1,307 | 726.1 | 35 / 100 |
| 865 | 86,494 | 1,209 | 728.5 | 33 / 107 |
| 870 | 87,007 | 1,209 | 730.6 | 47 / 47 |
| 875 | 87,528 | 1,209 | 734.8 | 33 / 33 |
| 880 | 88,002 | 1,209 | 738.6 | 34 / 33 |
| 885 | 88,530 | 1,174 | 741.5 | 33 / 82 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **SECOND CREEK** | | | | |
| 890 | 88,995 | 1,174 | 743.7 | 65 / 54 |
| 894 | 89,431 | 1,174 | 746.3 | 85 / 143 |
| 900 | 89,983 | 358 | 747.8 | 10 / 12 |
| 905 | 90,457 | 358 | 754.1 | 65 / 41 |
| 910 | 91,009 | 283 | 761.5 | 32 / 32 |
| 915 | 91,489 | 283 | 769.7 | 32 / 32 |
| 921 | 92,069 | 158 | 781.3 | 16 / 15 |
| 925 | 92,533 | 158 | 796.1 | 29 / 16 |
| 931 | 93,070 | 158 | 809.8 | 32 / 20 |
| **SECOND CREEK TRIBUTARY 1** | | | | |
| 003 | 326 | 2,030 | 640.1[4] | 70 / 17 |
| 006 | 644 | 2,030 | 640.1[4] | 42 / 17 |
| 010 | 1,001 | 2,030 | 640.8 | 34 / 43 |
| 016 | 1,601 | 2,030 | 645.8 | 158 / 17 |
| 019 | 1,948 | 2,030 | 646.2 | 136 / 69 |
| 024 | 2,440 | 2,030 | 646.7 | 88 / 82 |
| 030 | 3,045 | 2,030 | 647.8 | 73 / 132 |
| 035 | 3,472 | 2,030 | 648.8 | 24 / 153 |
| 040 | 3,985 | 1,931 | 649.9 | 140 / 142 |
| 044 | 4,421 | 1,931 | 650.7 | 128 / 30 |
| 048 | 4,829 | 1,931 | 652.4 | 17 / 74 |
| 054 | 5,432 | 1,931 | 655.8 | 49 / 62 |
| 057 | 5,689 | 1,931 | 657.1 | 55 / 15 |
| **SECOND CREEK TRIBUTARY 2** | | | | |
| 003 | 267 | 396 | 663.1[4] | 30 / 27 |
| 007 | 733 | 396 | 668.3 | 42 / 10 |
| 012 | 1,239 | 396 | 676.7 | 40 / 17 |
| 019 | 1,913 | 293 | 690.7 | 12 / 10 |
| 024 | 2,443 | 293 | 701.3 | 21 / 17 |
| 029 | 2,946 | 293 | 715.9 | 30 / 30 |
| 038 | 3,816 | 293 | 735.3 | 32 / 32 |
| **SECOND CREEK TRIBUTARY 3** | | | | |
| 001 | 106 | 1,002 | 746.6[4] | 32 / 57 |
| 005 | 509 | 1,002 | 748.9 | 49 / 32 |
| 009 | 909 | 1,002 | 751.5 | 32 / 32 |
| 017 | 1,650 | 955 | 756.1 | 32 / 32 |
| 020 | 2,022 | 955 | 759.3 | 32 / 32 |
| 024 | 2,437 | 955 | 761.9 | 15 / 32 |
| 029 | 2,861 | 955 | 765.5 | 32 / 32 |
| 033 | 3,322 | 719 | 767.1 | 115 / 27 |
| 040 | 3,996 | 719 | 769.3 | 34 / 33 |
| 044 | 4,443 | 719 | 773.1 | 32 / 7 |
| 049 | 4,911 | 719 | 777.2 | 33 / 19 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **SECOND CREEK TRIBUTARY 3** | | | | |
| 054 | 5,376 | 719 | 780.7 | 32 / 32 |
| 057 | 5,736 | 542 | 782.0 | 82 / 32 |
| 060 | 6,000 | 542 | 782.5 | 32 / 32 |
| 062 | 6,234 | 542 | 784.6 | 24 / 32 |
| 069 | 6,929 | 415 | 796.7 | 105 / 106 |
| 072 | 7,199 | 415 | 797.9 | 6 / 12 |
| 074 | 7,357 | 415 | 814.1 | 32 / 32 |
| 074 | 7,442 | 415 | 815.9 | 32 / 32 |
| 080 | 8,000 | 415 | 826.9 | 45 / 4 |
| **SILLS CREEK** | | | | |
| 005 | 450 | 4,537 | 679.7[4] | 83 / 51 |
| 009 | 900 | 4,537 | 679.7[4] | 310 / 43 |
| 014 | 1,350 | 4,537 | 679.7[4] | 271 / 252 |
| 018 | 1,800 | 4,537 | 679.7[4] | 145 / 447 |
| 023 | 2,250 | 4,537 | 679.7[4] | 32 / 461 |
| 027 | 2,700 | 4,537 | 679.7 | 25 / 363 |
| 032 | 3,150 | 4,537 | 680.1 | 157 / 112 |
| 036 | 3,600 | 4,537 | 680.9 | 88 / 102 |
| 038 | 3,828 | 4,537 | 681.2 | 36 / 76 |
| 041 | 4,050 | 4,537 | 682.5 | 134 / 27 |
| 046 | 4,576 | 4,537 | 683.4 | 63 / 147 |
| 048 | 4,767 | 4,537 | 683.8 | 55 / 180 |
| 054 | 5,400 | 4,537 | 685.7 | 40 / 353 |
| 060 | 5,950 | 4,537 | 685.7 | 57 / 310 |
| 062 | 6,172 | 4,537 | 685.8 | 226 / 191 |
| 068 | 6,750 | 4,537 | 686.1 | 277 / 236 |
| 072 | 7,200 | 4,370 | 686.2 | 233 / 287 |
| 077 | 7,650 | 4,370 | 686.5 | 218 / 216 |
| 078 | 7,803 | 4,370 | 686.6 | 291 / 74 |
| 082 | 8,246 | 4,370 | 687.1 | 260 / 165 |
| 086 | 8,550 | 4,370 | 687.3 | 179 / 192 |
| 088 | 8,820 | 4,370 | 687.6 | 136 / 308 |
| 090 | 9,000 | 4,370 | 687.7 | 30 / 369 |
| 095 | 9,450 | 4,370 | 688.3 | 68 / 336 |
| 099 | 9,900 | 4,370 | 689.1 | 176 / 314 |
| 104 | 10,350 | 4,370 | 689.7 | 102 / 389 |
| 108 | 10,800 | 4,370 | 690.2 | 213 / 249 |
| 113 | 11,250 | 4,370 | 690.9 | 300 / 262 |
| 117 | 11,700 | 4,370 | 691.6 | 246 / 142 |
| 122 | 12,150 | 4,224 | 692.4 | 313 / 36 |
| 126 | 12,600 | 4,224 | 693.0 | 109 / 129 |
| 131 | 13,050 | 4,224 | 694.0 | 183 / 183 |
| 140 | 13,950 | 4,224 | 696.1 | 373 / 185 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| SILLS CREEK | | | | |
| 144 | 14,400 | 4,070 | 696.4 | 429 / 77 |
| 149 | 14,850 | 4,070 | 696.8 | 426 / 80 |
| 153 | 15,300 | 4,070 | 697.2 | 154 / 370 |
| 162 | 16,200 | 4,070 | 701.5 | 351 / 30 |
| 167 | 16,650 | 3,815 | 701.7 | 34 / 427 |
| 171 | 17,063 | 3,815 | 701.9 | 24 / 453 |
| 174 | 17,402 | 3,815 | 702.0 | 47 / 415 |
| 180 | 18,000 | 3,815 | 702.5 | 52 / 285 |
| 183 | 18,282 | 3,815 | 702.9 | 230 / 60 |
| 186 | 18,600 | 3,815 | 703.9 | 175 / 187 |
| 188 | 18,838 | 3,815 | 704.1 | 219 / 87 |
| 192 | 19,171 | 3,815 | 704.6 | 195 / 189 |
| 197 | 19,730 | 3,815 | 705.1 | 29 / 179 |
| 203 | 20,250 | 3,815 | 705.7 | 158 / 131 |
| 205 | 20,486 | 3,815 | 706.1 | 280 / 74 |
| 208 | 20,782 | 3,815 | 706.4 | 208 / 34 |
| 212 | 21,150 | 3,815 | 706.9 | 35 / 142 |
| 216 | 21,600 | 3,815 | 707.4 | 73 / 307 |
| 221 | 22,050 | 3,815 | 708.0 | 44 / 216 |
| 225 | 22,500 | 3,815 | 708.5 | 99 / 116 |
| 230 | 22,950 | 3,629 | 709.5 | 236 / 122 |
| 239 | 23,940 | 3,629 | 713.4 | 37 / 86 |
| 243 | 24,300 | 3,629 | 713.9 | 178 / 67 |
| 248 | 24,847 | 3,629 | 714.3 | 120 / 89 |
| 252 | 25,200 | 3,629 | 714.7 | 183 / 140 |
| 257 | 25,650 | 3,629 | 715.0 | 150 / 172 |
| 261 | 26,100 | 3,629 | 715.1 | 32 / 89 |
| 266 | 26,550 | 3,629 | 715.5 | 35 / 45 |
| 270 | 27,000 | 3,465 | 715.9 | 39 / 28 |
| 275 | 27,450 | 3,465 | 716.3 | 38 / 31 |
| 279 | 27,900 | 3,465 | 716.9 | 44 / 36 |
| 284 | 28,350 | 3,465 | 717.4 | 33 / 36 |
| 288 | 28,800 | 3,465 | 718.0 | 31 / 35 |
| 293 | 29,250 | 3,465 | 718.7 | 34 / 31 |
| 297 | 29,700 | 3,465 | 719.5 | 38 / 25 |
| 302 | 30,150 | 3,076 | 720.8 | 29 / 27 |
| 306 | 30,600 | 2,923 | 722.4 | 22 / 38 |
| 310 | 31,030 | 2,923 | 723.0 | 29 / 35 |
| 320 | 31,950 | 2,923 | 724.6 | 40 / 18 |
| 324 | 32,400 | 2,658 | 725.2 | 14 / 27 |
| 329 | 32,850 | 2,658 | 726.4 | 14 / 35 |
| 333 | 33,300 | 2,658 | 727.4 | 31 / 29 |
| 338 | 33,750 | 2,658 | 727.9 | 29 / 32 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| SILLS CREEK | | | | |
| 340 | 33,980 | 2,658 | 728.0 | 26 / 28 |
| 342 | 34,200 | 2,658 | 728.4 | 24 / 35 |
| 347 | 34,650 | 2,658 | 730.3 | 25 / 30 |
| 351 | 35,100 | 2,658 | 731.9 | 32 / 30 |
| 356 | 35,550 | 2,658 | 732.8 | 18 / 24 |
| 360 | 36,000 | 2,658 | 734.2 | 27 / 36 |
| 365 | 36,450 | 2,658 | 734.7 | 28 / 31 |
| 369 | 36,900 | 2,487 | 735.2 | 29 / 30 |
| 374 | 37,350 | 2,487 | 736.1 | 31 / 22 |
| 377 | 37,709 | 2,487 | 737.1 | 21 / 40 |
| 378 | 37,800 | 2,487 | 736.3 | 16 / 17 |
| 381 | 38,071 | 1,819 | 739.2 | 21 / 31 |
| 383 | 38,250 | 1,819 | 739.5 | 18 / 22 |
| 387 | 38,700 | 1,819 | 741.0 | 14 / 15 |
| 396 | 39,600 | 1,299 | 746.1 | 11 / 25 |
| 401 | 40,050 | 1,299 | 747.0 | 12 / 18 |
| 405 | 40,500 | 1,299 | 748.2 | 15 / 9 |
| 410 | 40,950 | 1,299 | 750.9 | 10 / 16 |
| 414 | 41,400 | 1,299 | 753.3 | 8 / 14 |
| 419 | 41,850 | 1,299 | 756.3 | 10 / 86 |
| 423 | 42,300 | 1,299 | 758.2 | 15 / 13 |
| 425 | 42,548 | 1,299 | 759.6 | 8 / 97 |
| 428 | 42,750 | 1,299 | 760.1 | 11 / 93 |
| 432 | 43,200 | 1,299 | 761.8 | 13 / 14 |
| 437 | 43,650 | 1,299 | 763.4 | 81 / 9 |
| 441 | 44,100 | 1,299 | 767.5 | 82 / 80 |
| 446 | 44,550 | 1,299 | 768.5 | 8 / 128 |
| 450 | 45,000 | 923 | 771.2 | 133 / 7 |
| 455 | 45,450 | 923 | 772.5 | 50 / 7 |
| 459 | 45,900 | 923 | 775.3 | 76 / 7 |
| 464 | 46,350 | 923 | 777.8 | 87 / 7 |
| 468 | 46,800 | 923 | 779.2 | 65 / 7 |
| 473 | 47,250 | 923 | 781.2 | 9 / 9 |
| 477 | 47,700 | 537 | 785.1 | 13 / 43 |
| 482 | 48,150 | 537 | 786.5 | 9 / 9 |
| 486 | 48,600 | 537 | 789.3 | 12 / 7 |
| 492 | 49,185 | 537 | 792.5 | 32 / 7 |
| 495 | 49,500 | 537 | 794.5 | 11 / 11 |
| 500 | 49,950 | 537 | 797.7 | 15 / 12 |
| 504 | 50,400 | 537 | 800.4 | 7 / 14 |
| 509 | 50,850 | 537 | 805.6 | 7 / 7 |
| 513 | 51,300 | 346 | 810.4 | 7 / 7 |
| 518 | 51,750 | 346 | 813.2 | 7 / 7 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **SILLS CREEK TRIBUTARY 1** | | | | |
| 010 | 988 | 885 | 701.7[4] | 295 / 8 |
| 012 | 1,200 | 885 | 701.7[4] | 155 / 8 |
| 016 | 1,600 | 885 | 703.1 | 131 / 8 |
| 020 | 2,000 | 885 | 704.8 | 160 / 8 |
| 024 | 2,400 | 885 | 706.7 | 130 / 8 |
| 024 | 2,425 | 885 | 706.7 | 96 / 8 |
| 026 | 2,631 | 885 | 708.4 | 166 / 8 |
| 028 | 2,800 | 885 | 708.9 | 177 / 59 |
| 031 | 3,141 | 666 | 710.1 | 88 / 37 |
| **SLOANS CREEK** | | | | |
| 003 | 302 | 4,953 | 672.1[4] | 408 / 47 |
| 005 | 495 | 4,953 | 672.1[4] | 105 / 277 |
| 008 | 829 | 4,953 | 672.1[4] | 27 / 234 |
| 012 | 1,181 | 4,953 | 672.1[4] | 35 / 385 |
| 018 | 1,814 | 4,953 | 672.1[4] | 75 / 125 |
| 023 | 2,308 | 4,953 | 673.1 | 100 / 300 |
| 028 | 2,808 | 4,953 | 673.3 | 27 / 429 |
| 035 | 3,478 | 4,953 | 673.5 | 27 / 329 |
| 040 | 4,015 | 4,953 | 674.4 | 27 / 256 |
| 044 | 4,371 | 4,953 | 675.2 | 27 / 433 |
| 046 | 4,644 | 4,798 | 675.7 | 115 / 477 |
| 050 | 4,988 | 4,798 | 676.0 | 229 / 461 |
| 053 | 5,305 | 4,798 | 676.1 | 162 / 165 |
| 065 | 6,486 | 4,446 | 679.7 | 200 / 200 |
| 070 | 6,976 | 4,446 | 679.9 | 310 / 280 |
| 075 | 7,486 | 4,446 | 680.1 | 312 / 180 |
| 080 | 7,963 | 4,446 | 680.6 | 423 / 17 |
| 083 | 8,280 | 4,446 | 680.9 | 550 / 17 |
| 086 | 8,580 | 2,091 | 681.1 | 239 / 17 |
| 092 | 9,202 | 2,091 | 681.5 | 194 / 57 |
| 095 | 9,476 | 2,091 | 682.0 | 153 / 53 |
| 099 | 9,910 | 2,091 | 683.1 | 66 / 183 |
| 104 | 10,357 | 2,091 | 684.1 | 17 / 238 |
| 109 | 10,898 | 2,091 | 685.3 | 72 / 224 |
| 112 | 11,208 | 2,091 | 686.1 | 178 / 17 |
| 114 | 11,399 | 2,091 | 687.0 | 184 / 17 |
| 116 | 11,600 | 2,091 | 687.0 | 78 / 25 |
| 121 | 12,100 | 2,091 | 689.6 | 130 / 124 |
| 126 | 12,556 | 2,091 | 690.2 | 38 / 128 |
| 132 | 13,164 | 1,913 | 691.4 | 91 / 110 |
| 135 | 13,456 | 1,913 | 692.1 | 100 / 100 |
| 140 | 13,978 | 1,913 | 693.6 | 25 / 25 |
| 141 | 14,070 | 1,913 | 694.8 | 50 / 50 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| SLOANS CREEK | | | | |
| 141 | 14,127 | 1,913 | 694.8 | 75 / 85 |
| 145 | 14,468 | 1,913 | 695.8 | 176 / 75 |
| 151 | 15,139 | 1,591 | 697.6 | 185 / 73 |
| 155 | 15,483 | 1,591 | 698.8 | 139 / 15 |
| 160 | 16,003 | 1,591 | 702.0 | 102 / 15 |
| 165 | 16,483 | 1,591 | 704.5 | 136 / 37 |
| 169 | 16,937 | 1,591 | 705.9 | 89 / 21 |
| 173 | 17,282 | 1,591 | 707.2 | 196 / 76 |
| 176 | 17,578 | 1,591 | 707.7 | 114 / 173 |
| 185 | 18,495 | 1,591 | 712.5 | 15 / 59 |
| 189 | 18,877 | 1,591 | 713.8 | 34 / 105 |
| 195 | 19,493 | 1,591 | 714.8 | 184 / 20 |
| 200 | 19,986 | 1,591 | 715.9 | 60 / 82 |
| 204 | 20,398 | 1,591 | 717.6 | 75 / 53 |
| 207 | 20,653 | 1,305 | 718.8 | 13 / 106 |
| 210 | 21,019 | 1,305 | 720.3 | 8 / 171 |
| 215 | 21,513 | 1,305 | 721.9 | 13 / 131 |
| 220 | 22,031 | 1,305 | 723.9 | 13 / 128 |
| 225 | 22,477 | 1,305 | 725.5 | 13 / 117 |
| 229 | 22,853 | 1,305 | 726.6 | 13 / 180 |
| 235 | 23,476 | 1,071 | 728.0 | 13 / 157 |
| 240 | 23,985 | 1,071 | 730.3 | 13 / 110 |
| 244 | 24,366 | 1,071 | 732.3 | 13 / 120 |
| 248 | 24,764 | 960 | 734.5 | 12 / 110 |
| 255 | 25,532 | 960 | 739.4 | 47 / 15 |
| 258 | 25,802 | 960 | 741.2 | 25 / 46 |
| 265 | 26,482 | 960 | 744.5 | 67 / 12 |
| 269 | 26,946 | 960 | 746.9 | 20 / 23 |
| 271 | 27,146 | 960 | 748.6 | 12 / 31 |
| 273 | 27,260 | 960 | 749.9 | 35 / 22 |
| 275 | 27,452 | 960 | 751.6 | 17 / 14 |
| 278 | 27,847 | 960 | 756.8 | 10 / 8 |
| 281 | 28,062 | 960 | 758.9 | 12 / 7 |
| 282 | 28,187 | 960 | 762.1 | 6 / 25 |
| 283 | 28,302 | 960 | 763.4 | 10 / 50 |
| 288 | 28,806 | 960 | 763.3 | 30 / 70 |
| 292 | 29,221 | 960 | 765.3 | 45 / 30 |
| 298 | 29,785 | 644 | 768.2 | 20 / 36 |
| 303 | 30,274 | 644 | 771.4 | 12 / 58 |
| 308 | 30,772 | 644 | 775.7 | 12 / 31 |
| 310 | 31,028 | 496 | 777.7 | 12 / 12 |
| 314 | 31,428 | 496 | 781.8 | 12 / 12 |
| 317 | 31,686 | 496 | 786.1 | 13 / 16 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **SLOANS CREEK** | | | | |
| 321 | 32,149 | 496 | 792.1 | 12 / 5 |
| 324 | 32,407 | 496 | 798.7 | 8 / 8 |
| 326 | 32,608 | 496 | 803.7 | 12 / 12 |
| 332 | 33,230 | 496 | 824.3 | 25 / 35 |
| 335 | 33,474 | 496 | 824.3 | 20 / 30 |
| 337 | 33,738 | 496 | 823.7 | 5 / 14 |
| 342 | 34,239 | 496 | 831.8 | 18 / 18 |
| 347 | 34,698 | 496 | 838.4 | 13 / 5 |
| 350 | 34,974 | 496 | 843.8 | 4 / 5 |
| **SOUTH YADKIN RIVER** | | | | |
| 029 | 2,872 | 52,548 | 648.6[4] | 1,254 / 626 |
| 033 | 3,337 | 52,548 | 648.6[4] | 1,096 / 448 |
| 036 | 3,647 | 52,548 | 648.6[4] | 1,155 / 327 |
| 041 | 4,130 | 52,548 | 648.6[4] | 1,051 / 171 |
| 047 | 4,717 | 52,548 | 648.6[4] | 993 / 75 |
| 051 | 5,146 | 52,548 | 648.6[4] | 847 / 75 |
| 055 | 5,544 | 52,548 | 648.6[4] | 850 / 254 |
| 063 | 6,311 | 52,548 | 648.6[4] | 551 / 673 |
| 069 | 6,883 | 52,548 | 648.6[4] | 178 / 710 |
| 074 | 7,420 | 52,548 | 648.6[4] | 161 / 543 |
| 079 | 7,885 | 52,548 | 648.6[4] | 174 / 425 |
| 085 | 8,475 | 52,548 | 648.6[4] | 136 / 456 |
| 092 | 9,186 | 52,548 | 648.6[4] | 98 / 392 |
| 097 | 9,748 | 52,548 | 648.6[4] | 183 / 309 |
| 103 | 10,319 | 52,548 | 648.6[4] | 272 / 291 |
| 107 | 10,667 | 52,548 | 648.6[4] | 360 / 344 |
| 112 | 11,232 | 52,548 | 649.0 | 211 / 493 |
| 118 | 11,764 | 52,548 | 649.0 | 182 / 607 |
| 124 | 12,365 | 52,548 | 649.2 | 128 / 700 |
| 128 | 12,847 | 52,548 | 649.3 | 108 / 662 |
| 132 | 13,171 | 52,548 | 649.4 | 182 / 534 |
| 137 | 13,698 | 52,548 | 649.7 | 340 / 626 |
| 143 | 14,345 | 52,548 | 650.1 | 491 / 719 |
| 147 | 14,722 | 52,548 | 650.2 | 603 / 558 |
| 152 | 15,204 | 52,548 | 650.4 | 921 / 313 |
| 157 | 15,721 | 52,548 | 650.5 | 1,251 / 241 |
| 163 | 16,313 | 52,548 | 650.7 | 1,661 / 422 |
| 170 | 17,047 | 52,548 | 650.8 | 2,257 / 167 |
| 183 | 18,289 | 52,548 | 650.9 | 3,190 / 58 |
| 194 | 19,377 | 52,548 | 650.9 | 2,563 / 1,457 |
| 208 | 20,786 | 41,707 | 651.0 | 1,294 / 1,712 |
| 217 | 21,724 | 41,707 | 651.0 | 441 / 1,658 |
| 223 | 22,295 | 41,707 | 651.1 | 154 / 2,154 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **SOUTH YADKIN RIVER** | | | | |
| 229 | 22,876 | 41,707 | 651.1 | 66 / 2,001 |
| 236 | 23,565 | 41,707 | 651.1 | 255 / 1,967 |
| 241 | 24,101 | 41,707 | 651.1 | 66 / 1,652 |
| 247 | 24,675 | 41,707 | 651.2 | 66 / 1,381 |
| 251 | 25,058 | 41,707 | 651.2 | 66 / 1,321 |
| 257 | 25,664 | 41,707 | 651.3 | 66 / 1,288 |
| 261 | 26,098 | 41,707 | 651.4 | 86 / 1,330 |
| 266 | 26,605 | 41,707 | 651.5 | 104 / 1,358 |
| 272 | 27,232 | 41,707 | 651.7 | 572 / 1,320 |
| 280 | 27,995 | 41,707 | 651.7 | 549 / 407 |
| 285 | 28,527 | 41,707 | 651.7 | 574 / 252 |
| 289 | 28,947 | 41,707 | 651.9 | 237 / 380 |
| 300 | 30,040 | 41,707 | 653.0 | 729 / 80 |
| 304 | 30,403 | 41,707 | 653.1 | 921 / 66 |
| 310 | 31,035 | 41,707 | 653.3 | 928 / 288 |
| 315 | 31,466 | 41,707 | 653.3 | 650 / 430 |
| 320 | 31,963 | 41,707 | 653.4 | 512 / 544 |
| 323 | 32,296 | 41,707 | 653.5 | 564 / 383 |
| 327 | 32,696 | 41,707 | 653.5 | 536 / 199 |
| 330 | 33,037 | 41,707 | 653.7 | 713 / 80 |
| 336 | 33,553 | 41,707 | 653.8 | 470 / 375 |
| 342 | 34,156 | 41,707 | 653.9 | 251 / 445 |
| 345 | 34,511 | 41,707 | 654.0 | 223 / 316 |
| 348 | 34,826 | 41,707 | 654.0 | 203 / 302 |
| 353 | 35,282 | 41,707 | 654.5 | 115 / 513 |
| 356 | 35,556 | 41,707 | 654.5 | 85 / 615 |
| 359 | 35,941 | 41,707 | 654.6 | 66 / 682 |
| 364 | 36,358 | 41,707 | 654.8 | 80 / 681 |
| 368 | 36,772 | 41,707 | 654.9 | 162 / 561 |
| 374 | 37,350 | 41,336 | 655.0 | 249 / 304 |
| 379 | 37,887 | 41,336 | 655.3 | 659 / 94 |
| 383 | 38,273 | 41,336 | 655.5 | 1,112 / 52 |
| 386 | 38,558 | 41,336 | 655.6 | 1,198 / 153 |
| 391 | 39,086 | 41,336 | 655.7 | 1,031 / 417 |
| 397 | 39,663 | 41,336 | 655.7 | 837 / 135 |
| 399 | 39,929 | 41,336 | 655.8 | 923 / 175 |
| 407 | 40,682 | 24,015 | 656.0 | 787 / 206 |
| 410 | 41,033 | 24,015 | 656.1 | 553 / 571 |
| 412 | 41,233 | 24,015 | 656.1 | 392 / 658 |
| 418 | 41,806 | 24,015 | 656.1 | 149 / 692 |
| 423 | 42,298 | 24,015 | 656.2 | 76 / 1,007 |
| 430 | 42,978 | 23,987 | 656.3 | 950 / 723 |
| 438 | 43,815 | 23,708 | 656.3 | 2,001 / 162 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| SOUTH YADKIN RIVER | | | | |
| 450 | 45,044 | 23,708 | 656.4 | 1,306 / 75 |
| 455 | 45,518 | 23,708 | 656.4 | 1,045 / 75 |
| 460 | 46,031 | 23,708 | 656.4 | 772 / 177 |
| 465 | 46,489 | 23,708 | 656.5 | 417 / 419 |
| 470 | 46,956 | 23,708 | 656.6 | 368 / 748 |
| 476 | 47,562 | 23,680 | 656.6 | 108 / 845 |
| 482 | 48,181 | 23,680 | 656.7 | 75 / 1,041 |
| 489 | 48,887 | 23,680 | 656.7 | 250 / 942 |
| 494 | 49,426 | 23,680 | 656.7 | 295 / 530 |
| 502 | 50,213 | 23,680 | 656.9 | 255 / 227 |
| 516 | 51,614 | 23,636 | 657.2 | 325 / 106 |
| 529 | 52,936 | 23,601 | 657.5 | 158 / 106 |
| 538 | 53,827 | 23,601 | 657.9 | 293 / 274 |
| 546 | 54,614 | 23,601 | 658.5 | 385 / 220 |
| 554 | 55,371 | 23,601 | 659.1 | 169 / 206 |
| 564 | 56,416 | 23,588 | 659.2 | 323 / 75 |
| 569 | 56,905 | 23,588 | 660.0 | 343 / 79 |
| 576 | 57,585 | 23,588 | 661.3 | 197 / 266 |
| 580 | 57,957 | 23,588 | 662.3 | 139 / 349 |
| 584 | 58,432 | 23,588 | 663.4 | 309 / 800 |
| 590 | 59,035 | 23,588 | 663.8 | 394 / 650 |
| 596 | 59,603 | 23,588 | 664.3 | 440 / 554 |
| 601 | 60,134 | 23,585 | 664.6 | 243 / 288 |
| 605 | 60,509 | 23,585 | 665.1 | 282 / 75 |
| 611 | 61,064 | 23,585 | 666.1 | 384 / 75 |
| 617 | 61,664 | 23,583 | 666.8 | 236 / 555 |
| 623 | 62,317 | 23,583 | 667.2 | 187 / 573 |
| 628 | 62,810 | 23,583 | 667.5 | 143 / 272 |
| 643 | 64,296 | 23,583 | 669.2 | 113 / 330 |
| 650 | 64,963 | 23,583 | 669.7 | 75 / 442 |
| 654 | 65,418 | 23,583 | 670.0 | 75 / 643 |
| 676 | 67,580 | 23,581 | 670.7 | 1,250 / 145 |
| 686 | 68,604 | 23,581 | 670.8 | 1,417 / 127 |
| 696 | 69,603 | 23,581 | 671.0 | 988 / 251 |
| 704 | 70,364 | 23,415 | 671.0 | 292 / 154 |
| 710 | 70,988 | 23,415 | 671.4 | 205 / 100 |
| 716 | 71,638 | 23,415 | 672.0 | 113 / 274 |
| 723 | 72,260 | 23,373 | 672.4 | 90 / 579 |
| 730 | 72,994 | 23,373 | 672.8 | 148 / 434 |
| 734 | 73,421 | 23,373 | 673.0 | 72 / 343 |
| 739 | 73,888 | 23,373 | 673.3 | 72 / 399 |
| 751 | 75,136 | 18,531 | 673.8 | 1,840 / 53 |
| 783 | 78,260 | 18,531 | 674.0 | 1,930 / 396 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **SOUTH YADKIN RIVER** | | | | |
| 788 | 78,787 | 18,531 | 674.0 | 1,950 / 169 |
| 794 | 79,428 | 18,531 | 674.1 | 1,838 / 474 |
| 805 | 80,479 | 18,531 | 674.1 | 1,853 / 675 |
| 812 | 81,167 | 18,506 | 674.2 | 1,716 / 602 |
| 829 | 82,867 | 18,477 | 674.3 | 298 / 1,062 |
| 832 | 83,175 | 18,477 | 674.4 | 101 / 1,120 |
| 837 | 83,692 | 18,477 | 674.5 | 53 / 1,074 |
| 844 | 84,424 | 18,477 | 674.6 | 257 / 987 |
| 850 | 85,047 | 18,477 | 674.8 | 435 / 471 |
| 856 | 85,583 | 18,477 | 675.0 | 441 / 384 |
| 863 | 86,305 | 18,462 | 675.3 | 286 / 135 |
| 869 | 86,917 | 18,462 | 675.9 | 292 / 94 |
| 875 | 87,530 | 18,462 | 676.5 | 258 / 68 |
| 880 | 88,049 | 18,462 | 677.2 | 53 / 597 |
| 887 | 88,691 | 18,462 | 677.5 | 55 / 694 |
| 892 | 89,230 | 18,462 | 677.7 | 90 / 465 |
| 903 | 90,259 | 18,393 | 679.1 | 158 / 406 |
| 910 | 90,988 | 18,393 | 679.4 | 583 / 124 |
| 914 | 91,410 | 18,393 | 679.6 | 636 / 122 |
| 920 | 91,994 | 18,393 | 679.8 | 529 / 142 |
| 927 | 92,695 | 18,393 | 680.1 | 172 / 267 |
| 932 | 93,217 | 18,393 | 680.4 | 97 / 271 |
| 937 | 93,715 | 18,393 | 680.7 | 123 / 241 |
| 943 | 94,330 | 18,393 | 681.2 | 308 / 52 |
| 950 | 94,957 | 18,393 | 681.6 | 308 / 54 |
| 957 | 95,736 | 17,860 | 682.1 | 169 / 340 |
| 963 | 96,337 | 17,860 | 682.4 | 420 / 168 |
| 969 | 96,873 | 17,860 | 682.6 | 671 / 52 |
| 976 | 97,558 | 17,836 | 682.8 | 678 / 359 |
| 982 | 98,179 | 17,836 | 682.9 | 635 / 281 |
| 988 | 98,808 | 17,836 | 683.1 | 321 / 342 |
| 996 | 99,578 | 17,836 | 683.4 | 151 / 235 |
| 1000 | 100,001 | 17,836 | 683.8 | 236 / 94 |
| 1006 | 100,590 | 17,836 | 684.3 | 291 / 52 |
| 1016 | 101,570 | 17,729 | 685.1 | 230 / 368 |
| 1033 | 103,272 | 17,703 | 687.0 | 108 / 279 |
| 1039 | 103,944 | 17,703 | 687.4 | 238 / 155 |
| 1045 | 104,494 | 17,703 | 687.8 | 161 / 291 |
| 1049 | 104,938 | 17,703 | 688.0 | 176 / 314 |
| 1059 | 105,939 | 17,702 | 688.6 | 917 / 74 |
| 1067 | 106,661 | 17,698 | 688.9 | 1,094 / 98 |
| 1074 | 107,440 | 17,698 | 689.1 | 1,161 / 54 |
| 1081 | 108,050 | 17,698 | 689.4 | 560 / 573 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **SOUTH YADKIN RIVER** | | | | |
| 1088 | 108,801 | 17,698 | 689.5 | 75 / 834 |
| 1095 | 109,470 | 17,698 | 689.7 | 51 / 1,098 |
| 1105 | 110,497 | 17,698 | 689.9 | 51 / 1,485 |
| 1116 | 111,558 | 17,697 | 690.0 | 756 / 879 |
| 1125 | 112,459 | 17,696 | 690.1 | 428 / 1,460 |
| 1150 | 115,016 | 17,695 | 690.4 | 1,216 / 604 |
| 1158 | 115,768 | 17,695 | 690.5 | 1,175 / 387 |
| 1162 | 116,235 | 17,693 | 690.6 | 1,056 / 163 |
| 1168 | 116,813 | 17,693 | 690.7 | 466 / 96 |
| 1176 | 117,568 | 17,693 | 691.4 | 304 / 171 |
| 1183 | 118,312 | 17,693 | 692.0 | 78 / 196 |
| 1190 | 118,994 | 17,693 | 692.9 | 51 / 695 |
| 1197 | 119,666 | 17,688 | 693.2 | 510 / 518 |
| 1202 | 120,189 | 17,688 | 693.4 | 525 / 456 |
| 1208 | 120,769 | 17,688 | 693.6 | 550 / 281 |
| 1217 | 121,703 | 17,688 | 693.9 | 202 / 154 |
| 1227 | 122,703 | 17,688 | 694.9 | 641 / 51 |
| 1238 | 123,786 | 17,688 | 695.5 | 55 / 784 |
| 1263 | 126,329 | 17,686 | 696.2 | 1,402 / 51 |
| 1274 | 127,350 | 17,682 | 696.4 | 683 / 223 |
| 1284 | 128,364 | 17,682 | 696.9 | 401 / 51 |
| **THIRD CREEK** | | | | |
| 004 | 371 | 12,323 | 669.6[4] | 100 / 173 |
| 010 | 960 | 12,323 | 669.6[4] | 70 / 231 |
| 015 | 1,463 | 12,323 | 669.6[4] | 204 / 150 |
| 020 | 1,968 | 12,323 | 669.6[4] | 139 / 88 |
| 025 | 2,509 | 12,323 | 669.6[4] | 131 / 100 |
| 029 | 2,915 | 12,323 | 669.6[4] | 170 / 194 |
| 032 | 3,233 | 12,323 | 669.6[4] | 170 / 121 |
| 036 | 3,562 | 12,323 | 669.6[4] | 64 / 164 |
| 039 | 3,902 | 12,323 | 669.6[4] | 29 / 278 |
| 041 | 4,149 | 12,323 | 669.6[4] | 228 / 195 |
| 050 | 4,992 | 12,323 | 669.6[4] | 192 / 127 |
| 054 | 5,393 | 12,323 | 669.9 | 329 / 98 |
| 058 | 5,822 | 12,323 | 670.3 | 508 / 32 |
| 066 | 6,647 | 12,323 | 670.6 | 243 / 103 |
| 069 | 6,948 | 12,323 | 670.8 | 41 / 133 |
| 076 | 7,589 | 12,323 | 671.4 | 115 / 32 |
| 083 | 8,267 | 12,323 | 672.5 | 117 / 69 |
| 092 | 9,174 | 12,323 | 673.4 | 56 / 566 |
| 100 | 10,036 | 12,323 | 673.5 | 253 / 52 |
| 104 | 10,433 | 12,323 | 673.8 | 89 / 115 |
| 109 | 10,898 | 12,323 | 674.5 | 99 / 90 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| THIRD CREEK | | | | |
| 113 | 11,313 | 12,323 | 675.3 | 506 / 33 |
| 118 | 11,752 | 12,323 | 675.8 | 294 / 127 |
| 123 | 12,254 | 12,323 | 676.1 | 86 / 91 |
| 127 | 12,703 | 12,323 | 676.8 | 65 / 99 |
| 133 | 13,257 | 12,323 | 677.6 | 78 / 70 |
| 138 | 13,840 | 12,323 | 678.6 | 135 / 88 |
| 146 | 14,561 | 12,323 | 679.9 | 74 / 128 |
| 151 | 15,149 | 12,323 | 680.8 | 117 / 141 |
| 155 | 15,516 | 12,323 | 681.0 | 169 / 214 |
| 159 | 15,884 | 12,323 | 681.0 | 38 / 179 |
| 164 | 16,352 | 12,323 | 681.7 | 168 / 32 |
| 170 | 16,971 | 12,323 | 682.3 | 88 / 349 |
| 174 | 17,406 | 12,323 | 682.6 | 392 / 308 |
| 182 | 18,170 | 12,323 | 683.0 | 590 / 48 |
| 192 | 19,230 | 12,323 | 683.9 | 143 / 80 |
| 196 | 19,610 | 12,323 | 684.3 | 110 / 45 |
| 199 | 19,904 | 12,323 | 685.3 | 57 / 254 |
| 204 | 20,395 | 12,323 | 685.7 | 187 / 79 |
| 211 | 21,114 | 12,323 | 686.3 | 50 / 235 |
| 216 | 21,562 | 12,323 | 686.5 | 59 / 113 |
| 220 | 21,968 | 12,323 | 687.0 | 48 / 130 |
| 223 | 22,327 | 12,323 | 687.7 | 50 / 191 |
| 227 | 22,738 | 12,323 | 688.1 | 41 / 170 |
| 233 | 23,297 | 12,323 | 688.6 | 115 / 96 |
| 238 | 23,804 | 12,323 | 688.8 | 130 / 46 |
| 248 | 24,787 | 12,323 | 690.7 | 118 / 108 |
| 252 | 25,242 | 12,323 | 691.2 | 121 / 80 |
| 256 | 25,574 | 11,809 | 691.9 | 170 / 93 |
| 262 | 26,234 | 11,809 | 692.3 | 313 / 55 |
| 268 | 26,847 | 11,809 | 692.6 | 537 / 352 |
| 275 | 27,523 | 11,809 | 692.6 | 57 / 810 |
| 277 | 27,703 | 11,809 | 692.6 | 57 / 734 |
| 286 | 28,568 | 11,809 | 692.8 | 412 / 252 |
| 289 | 28,893 | 11,809 | 692.8 | 379 / 138 |
| 297 | 29,699 | 11,809 | 693.0 | 397 / 491 |
| 304 | 30,388 | 11,809 | 693.1 | 389 / 420 |
| 308 | 30,767 | 11,809 | 693.1 | 551 / 505 |
| 313 | 31,342 | 11,809 | 693.2 | 485 / 487 |
| 319 | 31,936 | 11,809 | 693.3 | 129 / 620 |
| 324 | 32,436 | 11,809 | 693.4 | 33 / 597 |
| 333 | 33,286 | 11,809 | 693.7 | 193 / 273 |
| 340 | 34,047 | 11,809 | 694.3 | 217 / 286 |
| 345 | 34,508 | 11,809 | 694.5 | 281 / 104 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| THIRD CREEK | | | | |
| 353 | 35,309 | 11,809 | 695.2 | 112 / 56 |
| 358 | 35,797 | 11,809 | 696.2 | 176 / 89 |
| 365 | 36,521 | 11,809 | 697.0 | 80 / 137 |
| 370 | 37,017 | 11,809 | 697.5 | 122 / 48 |
| 374 | 37,447 | 11,809 | 698.4 | 333 / 114 |
| 381 | 38,052 | 11,809 | 698.6 | 208 / 152 |
| 384 | 38,367 | 11,809 | 698.9 | 133 / 213 |
| 386 | 38,603 | 11,300 | 699.0 | 114 / 295 |
| 394 | 39,359 | 11,300 | 699.4 | 389 / 58 |
| 396 | 39,625 | 11,300 | 699.4 | 488 / 57 |
| 401 | 40,071 | 11,300 | 699.5 | 381 / 46 |
| 405 | 40,498 | 11,300 | 699.6 | 316 / 35 |
| 413 | 41,341 | 11,300 | 699.8 | 378 / 416 |
| 418 | 41,802 | 11,300 | 699.9 | 264 / 407 |
| 429 | 42,853 | 11,300 | 700.3 | 320 / 246 |
| 434 | 43,403 | 11,300 | 700.6 | 226 / 91 |
| 439 | 43,857 | 11,300 | 701.3 | 166 / 77 |
| 442 | 44,230 | 11,300 | 702.0 | 181 / 88 |
| 450 | 44,988 | 11,300 | 703.1 | 46 / 109 |
| 455 | 45,525 | 11,300 | 704.0 | 148 / 83 |
| 460 | 46,009 | 11,300 | 705.1 | 92 / 159 |
| 464 | 46,407 | 11,300 | 705.3 | 92 / 58 |
| 468 | 46,803 | 11,300 | 706.2 | 79 / 300 |
| 473 | 47,281 | 11,190 | 707.5 | 174 / 78 |
| 479 | 47,902 | 11,190 | 707.8 | 43 / 93 |
| 487 | 48,682 | 11,190 | 708.7 | 176 / 116 |
| 495 | 49,463 | 11,190 | 709.0 | 378 / 381 |
| 502 | 50,182 | 11,190 | 709.1 | 289 / 515 |
| 511 | 51,068 | 11,190 | 709.2 | 445 / 387 |
| 517 | 51,705 | 11,190 | 709.2 | 254 / 510 |
| 522 | 52,209 | 11,190 | 709.3 | 301 / 434 |
| 531 | 53,105 | 11,190 | 709.5 | 28 / 437 |
| 537 | 53,708 | 10,953 | 709.7 | 195 / 226 |
| 545 | 54,467 | 10,953 | 710.0 | 473 / 277 |
| 552 | 55,205 | 10,953 | 710.2 | 664 / 306 |
| 558 | 55,822 | 10,953 | 710.3 | 293 / 295 |
| 573 | 57,254 | 10,953 | 711.7 | 431 / 135 |
| 578 | 57,792 | 10,953 | 714.4 | 911 / 177 |
| 585 | 58,509 | 10,953 | 715.1 | 960 / 46 |
| 591 | 59,126 | 10,953 | 715.1 | 857 / 167 |
| 595 | 59,494 | 10,953 | 715.1 | 748 / 175 |
| 603 | 60,270 | 10,953 | 715.2 | 425 / 323 |
| 609 | 60,853 | 10,953 | 715.3 | 160 / 365 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **THIRD CREEK** | | | | |
| 614 | 61,377 | 10,953 | 715.6 | 113 / 132 |
| 620 | 62,022 | 10,953 | 716.4 | 340 / 78 |
| 624 | 62,403 | 10,953 | 716.7 | 341 / 269 |
| 627 | 62,685 | 10,953 | 716.9 | 508 / 412 |
| 637 | 63,674 | 10,953 | 717.3 | 349 / 45 |
| 642 | 64,188 | 10,953 | 717.7 | 226 / 330 |
| 650 | 65,030 | 10,953 | 718.0 | 446 / 334 |
| 657 | 65,708 | 10,953 | 718.2 | 394 / 35 |
| 663 | 66,330 | 10,953 | 718.6 | 78 / 293 |
| 670 | 66,980 | 10,521 | 719.1 | 406 / 267 |
| 673 | 67,287 | 10,521 | 719.1 | 443 / 150 |
| 680 | 68,008 | 10,521 | 719.4 | 351 / 311 |
| 688 | 68,794 | 10,521 | 719.7 | 483 / 307 |
| 693 | 69,258 | 10,067 | 720.0 | 501 / 211 |
| 700 | 69,970 | 10,067 | 720.3 | 562 / 413 |
| 707 | 70,690 | 10,067 | 720.6 | 431 / 280 |
| 713 | 71,317 | 10,067 | 721.1 | 265 / 235 |
| 719 | 71,890 | 10,067 | 721.7 | 296 / 391 |
| 725 | 72,540 | 10,067 | 722.2 | 498 / 150 |
| **UNNAMED STREAM 1** | | | | |
| 011 | 1,116 | 1,738 | 678.1[4] | 47 / 52 |
| 014 | 1,392 | 1,738 | 678.1[4] | 27 / 85 |
| 020 | 1,962 | 1,529 | 678.1[4] | 15 / 83 |
| 023 | 2,283 | 1,529 | 678.1[4] | 16 / 140 |
| 026 | 2,560 | 1,529 | 678.1[4] | 16 / 131 |
| 030 | 3,009 | 1,529 | 678.1[4] | 47 / 78 |
| 033 | 3,253 | 1,529 | 678.1[4] | 57 / 120 |
| 036 | 3,568 | 1,529 | 678.1[4] | 35 / 108 |
| 040 | 3,963 | 1,404 | 678.4 | 18 / 200 |
| 043 | 4,298 | 1,404 | 678.7 | 20 / 135 |
| 048 | 4,823 | 1,404 | 680.5 | 120 / 46 |
| 053 | 5,300 | 1,404 | 681.6 | 274 / 14 |
| 057 | 5,677 | 1,047 | 684.3 | 19 / 152 |
| 059 | 5,906 | 1,047 | 685.6 | 42 / 49 |
| 063 | 6,291 | 1,047 | 687.5 | 160 / 11 |
| **UNNAMED STREAM 2** | | | | |
| 004 | 442 | 1,479 | 719.6[4] | 21 / 29 |
| 009 | 879 | 1,479 | 719.6[4] | 67 / 29 |
| 012 | 1,200 | 1,479 | 719.6[4] | 14 / 43 |
| 016 | 1,567 | 1,479 | 719.6[4] | 25 / 20 |
| 019 | 1,926 | 1,479 | 719.8 | 17 / 34 |
| 022 | 2,159 | 1,479 | 720.5 | 14 / 46 |
| 025 | 2,548 | 1,479 | 721.9 | 67 / 50 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **UNNAMED STREAM 2** | | | | |
| 028 | 2,750 | 1,479 | 722.2 | 131 / 14 |
| 032 | 3,166 | 1,386 | 722.9 | 107 / 80 |
| **WITHROW CREEK** | | | | |
| 012 | 1,210 | 8,575 | 665.3[4] | 180 / 580 |
| 015 | 1,486 | 8,575 | 665.3[4] | 125 / 178 |
| 017 | 1,717 | 8,575 | 665.4 | 246 / 40 |
| 020 | 2,012 | 8,575 | 665.7 | 130 / 39 |
| 024 | 2,391 | 8,575 | 666.7 | 150 / 50 |
| 029 | 2,860 | 8,575 | 667.9 | 270 / 100 |
| 031 | 3,096 | 8,575 | 668.0 | 300 / 65 |
| 036 | 3,600 | 8,575 | 668.3 | 250 / 350 |
| 040 | 4,000 | 8,575 | 668.5 | 272 / 421 |
| 046 | 4,597 | 8,575 | 668.8 | 47 / 448 |
| 051 | 5,126 | 8,575 | 669.3 | 185 / 285 |
| 055 | 5,480 | 8,575 | 669.6 | 339 / 37 |
| 062 | 6,195 | 8,575 | 669.9 | 450 / 213 |
| 067 | 6,659 | 8,575 | 670.0 | 370 / 70 |
| 069 | 6,943 | 8,276 | 670.2 | 201 / 234 |
| 076 | 7,564 | 8,276 | 670.8 | 283 / 55 |
| 079 | 7,899 | 8,276 | 671.2 | 333 / 228 |
| 084 | 8,413 | 8,276 | 671.5 | 389 / 33 |
| 088 | 8,795 | 8,276 | 671.8 | 507 / 33 |
| 091 | 9,140 | 8,276 | 672.0 | 402 / 36 |
| 096 | 9,575 | 8,276 | 672.2 | 200 / 180 |
| 102 | 10,156 | 8,276 | 672.2 | 137 / 33 |
| 104 | 10,403 | 8,276 | 673.8 | 103 / 47 |
| 108 | 10,757 | 8,276 | 674.8 | 39 / 115 |
| 110 | 11,043 | 8,276 | 675.4 | 68 / 160 |
| 115 | 11,509 | 8,276 | 675.8 | 88 / 227 |
| 120 | 12,028 | 8,276 | 679.1 | 100 / 150 |
| 123 | 12,327 | 8,276 | 679.1 | 64 / 68 |
| 128 | 12,764 | 8,276 | 679.9 | 65 / 160 |
| 132 | 13,246 | 7,992 | 680.2 | 150 / 225 |
| 137 | 13,740 | 7,992 | 680.2 | 355 / 175 |
| 142 | 14,211 | 7,992 | 680.2 | 175 / 450 |
| 147 | 14,673 | 7,992 | 680.3 | 100 / 435 |
| 154 | 15,415 | 7,992 | 680.3 | 151 / 260 |
| 160 | 15,986 | 7,992 | 680.8 | 88 / 301 |
| 165 | 16,476 | 7,992 | 681.1 | 164 / 143 |
| 168 | 16,807 | 7,992 | 681.4 | 299 / 37 |
| 172 | 17,179 | 7,992 | 681.9 | 320 / 124 |
| 175 | 17,546 | 7,992 | 682.2 | 325 / 420 |
| 179 | 17,944 | 7,992 | 682.3 | 465 / 420 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| WITHROW CREEK | | | | |
| 186 | 18,552 | 7,992 | 682.3 | 135 / 440 |
| 188 | 18,824 | 7,773 | 682.5 | 90 / 600 |
| 191 | 19,120 | 7,773 | 682.5 | 225 / 475 |
| 197 | 19,733 | 7,773 | 682.5 | 145 / 60 |
| 204 | 20,386 | 7,773 | 684.3 | 146 / 330 |
| 210 | 20,995 | 6,604 | 684.5 | 263 / 101 |
| 214 | 21,365 | 6,604 | 684.8 | 215 / 171 |
| 217 | 21,725 | 6,604 | 685.2 | 132 / 430 |
| 224 | 22,365 | 6,604 | 685.4 | 42 / 459 |
| 227 | 22,702 | 6,604 | 685.7 | 37 / 379 |
| 232 | 23,208 | 6,604 | 686.1 | 230 / 255 |
| 236 | 23,574 | 6,604 | 686.2 | 200 / 107 |
| 239 | 23,860 | 6,604 | 686.4 | 65 / 100 |
| 244 | 24,427 | 6,604 | 688.0 | 175 / 225 |
| 248 | 24,753 | 6,604 | 688.1 | 169 / 208 |
| 252 | 25,194 | 6,604 | 689.6 | 113 / 157 |
| 255 | 25,524 | 6,604 | 689.9 | 98 / 342 |
| 260 | 26,006 | 6,604 | 690.2 | 181 / 390 |
| 264 | 26,359 | 6,604 | 690.4 | 158 / 424 |
| 267 | 26,680 | 6,604 | 690.6 | 33 / 319 |
| 270 | 27,036 | 6,396 | 691.0 | 45 / 297 |
| 275 | 27,481 | 6,396 | 691.6 | 137 / 122 |
| 278 | 27,798 | 6,396 | 691.9 | 70 / 264 |
| 285 | 28,535 | 6,396 | 692.8 | 400 / 125 |
| 290 | 28,961 | 6,396 | 693.0 | 550 / 210 |
| 296 | 29,620 | 6,396 | 693.4 | 252 / 286 |
| 300 | 29,972 | 6,396 | 693.8 | 308 / 359 |
| 305 | 30,544 | 6,396 | 694.1 | 276 / 193 |
| 310 | 30,976 | 6,396 | 694.5 | 403 / 34 |
| 314 | 31,366 | 6,396 | 695.3 | 250 / 200 |
| 318 | 31,802 | 6,396 | 695.8 | 110 / 80 |
| 320 | 32,037 | 6,396 | 696.6 | 50 / 35 |
| 325 | 32,505 | 6,115 | 701.0 | 270 / 135 |
| 328 | 32,800 | 6,115 | 701.1 | 169 / 285 |
| 332 | 33,234 | 6,115 | 701.1 | 308 / 237 |
| 336 | 33,555 | 6,115 | 701.2 | 37 / 197 |
| 340 | 34,016 | 6,115 | 701.9 | 220 / 240 |
| 344 | 34,352 | 6,115 | 702.1 | 56 / 352 |
| 348 | 34,802 | 6,115 | 702.3 | 65 / 221 |
| 353 | 35,284 | 6,115 | 702.7 | 96 / 204 |
| 356 | 35,551 | 6,115 | 702.9 | 70 / 150 |
| 359 | 35,912 | 6,115 | 703.5 | 215 / 80 |
| 364 | 36,361 | 6,115 | 704.3 | 198 / 181 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| WITHROW CREEK | | | | |
| 367 | 36,657 | 6,115 | 704.4 | 140 / 190 |
| 372 | 37,190 | 6,115 | 704.8 | 50 / 120 |
| 376 | 37,594 | 6,115 | 705.5 | 70 / 55 |
| 382 | 38,190 | 6,115 | 706.8 | 250 / 40 |
| 389 | 38,870 | 5,900 | 707.8 | 235 / 345 |
| 393 | 39,308 | 5,900 | 708.0 | 155 / 530 |
| 398 | 39,807 | 5,900 | 708.3 | 30 / 405 |
| 404 | 40,433 | 5,900 | 709.1 | 75 / 350 |
| 407 | 40,679 | 5,900 | 709.3 | 110 / 135 |
| 413 | 41,306 | 5,900 | 713.4 | 224 / 30 |
| 416 | 41,640 | 5,900 | 713.6 | 88 / 228 |
| 420 | 42,026 | 5,900 | 713.7 | 32 / 208 |
| 423 | 42,289 | 5,900 | 713.7 | 176 / 129 |
| 428 | 42,796 | 5,900 | 714.2 | 257 / 151 |
| 433 | 43,257 | 5,665 | 714.5 | 333 / 72 |
| 439 | 43,851 | 5,665 | 715.0 | 35 / 327 |
| 444 | 44,434 | 5,665 | 715.9 | 368 / 34 |
| 448 | 44,845 | 5,665 | 716.7 | 350 / 175 |
| 453 | 45,290 | 5,665 | 717.1 | 60 / 350 |
| 457 | 45,659 | 5,665 | 717.1 | 100 / 135 |
| 460 | 45,978 | 5,665 | 718.2 | 175 / 210 |
| 463 | 46,336 | 5,665 | 718.7 | 139 / 36 |
| 468 | 46,771 | 5,665 | 719.4 | 108 / 84 |
| 472 | 47,190 | 5,665 | 720.2 | 116 / 65 |
| 476 | 47,605 | 5,665 | 721.0 | 260 / 57 |
| 480 | 48,025 | 5,665 | 721.9 | 224 / 68 |
| 483 | 48,322 | 5,454 | 722.6 | 33 / 150 |
| 487 | 48,693 | 5,454 | 723.2 | 47 / 48 |
| 493 | 49,317 | 5,454 | 724.4 | 45 / 105 |
| 496 | 49,618 | 5,454 | 725.0 | 122 / 33 |
| 500 | 49,991 | 5,454 | 725.7 | 31 / 89 |
| 503 | 50,266 | 5,454 | 726.3 | 33 / 36 |
| 508 | 50,799 | 5,454 | 729.6 | 150 / 125 |
| 513 | 51,309 | 5,454 | 729.9 | 33 / 174 |
| 516 | 51,601 | 5,454 | 729.9 | 50 / 145 |
| 522 | 52,202 | 5,057 | 731.1 | 130 / 205 |
| 526 | 52,551 | 5,057 | 731.4 | 31 / 197 |
| 528 | 52,814 | 5,057 | 732.1 | 29 / 269 |
| 532 | 53,213 | 5,057 | 733.0 | 156 / 120 |
| 537 | 53,735 | 5,057 | 734.0 | 112 / 31 |
| 540 | 54,021 | 5,057 | 734.8 | 27 / 146 |
| 543 | 54,276 | 5,057 | 735.7 | 27 / 61 |
| 549 | 54,862 | 5,057 | 737.0 | 48 / 31 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| **WITHROW CREEK** | | | | |
| 554 | 55,408 | 5,057 | 738.6 | 35 / 70 |
| 557 | 55,682 | 5,057 | 739.3 | 45 / 65 |
| 562 | 56,153 | 5,057 | 741.1 | 150 / 40 |
| 565 | 56,509 | 4,887 | 741.9 | 116 / 128 |
| 568 | 56,817 | 4,887 | 742.2 | 115 / 125 |
| 573 | 57,257 | 4,887 | 742.8 | 230 / 185 |
| **WOODLEAF BRANCH (EAST)** | | | | |
| 044 | 4,407 | 894 | 680.3 | 31 / 12 |
| 053 | 5,334 | 830 | 690.2 | 32 / 178 |
| 069 | 6,894 | 533 | 695.6 | 17 / 21 |
| 071 | 7,148 | 533 | 698.8 | 6 / 12 |
| 075 | 7,475 | 533 | 707.1 | 17 / 32 |
| **WOODLEAF BRANCH (WEST)** | | | | |
| 007 | 740 | 1,130 | 730.5[4] | 13 / 24 |
| 010 | 1,000 | 1,130 | 730.8 | 30 / 13 |
| 015 | 1,500 | 1,130 | 736.3 | 30 / 25 |
| 019 | 1,911 | 1,130 | 737.7 | 15 / 15 |
| 025 | 2,500 | 1,130 | 740.7 | 30 / 13 |
| 027 | 2,707 | 1,130 | 741.6 | 13 / 17 |
| 031 | 3,094 | 1,130 | 743.0 | 18 / 18 |
| 032 | 3,234 | 1,130 | 745.7 | 30 / 30 |
| 036 | 3,582 | 935 | 746.6 | 37 / 32 |
| 040 | 4,000 | 935 | 751.0 | 60 / 12 |
| 046 | 4,569 | 935 | 753.2 | 80 / 12 |
| 050 | 5,000 | 935 | 757.3 | 21 / 12 |
| 055 | 5,500 | 935 | 760.4 | 59 / 12 |
| 060 | 6,000 | 935 | 762.7 | 25 / 44 |
| 062 | 6,160 | 935 | 763.7 | 50 / 50 |
| 066 | 6,601 | 811 | 765.7 | 10 / 160 |
| 068 | 6,844 | 687 | 766.9 | 75 / 75 |
| **YADKIN RIVER** | | | | |
| 3762 | 376,165 | 162,800 | 568.3 | 414 / 406 |
| 3782 | 378,165 | 162,800 | 570.2 | 639 / 643 |
| 3802 | 380,165 | 162,800 | 570.7 | 517 / 517 |
| 3816 | 381,606 | 162,800 | 571.4 | 826 / 826 |
| 3833 | 383,343 | 162,800 | 571.6 | 581 / 581 |
| 3852 | 385,217 | 162,800 | 572.1 | 691 / 691 |
| 3865 | 386,531 | 162,800 | 572.4 | 816 / 816 |
| 3884 | 388,390 | 162,800 | 572.4 | 604 / 604 |
| 3902 | 390,165 | 162,800 | 572.4 | 313 / 305 |
| 3922 | 392,165 | 162,800 | 573.6 | 445 / 438 |
| 3942 | 394,165 | 162,800 | 574.8 | 963 / 963 |
| 3962 | 396,165 | 162,800 | 574.9 | 683 / 683 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| YADKIN RIVER | | | | |
| 3982 | 398,165 | 162,800 | 575.3 | 784 / 784 |
| 4002 | 400,165 | 162,800 | 575.6 | 799 / 799 |
| 4022 | 402,165 | 162,800 | 575.9 | 920 / 920 |
| 4042 | 404,165 | 162,800 | 576.1 | 765 / 765 |
| 4062 | 406,165 | 162,800 | 576.4 | 1,395 / 530 |
| 4082 | 408,165 | 162,800 | 576.8 | 1,006 / 461 |
| 4100 | 409,998 | 162,800 | 577.5 | 573 / 571 |
| 4122 | 412,165 | 162,800 | 578.1 | 831 / 533 |
| 4149 | 414,920 | 157,500 | 582.4 | 370 / 370 |
| 4182 | 418,165 | 157,500 | 624.7 | 711 / 701 |
| 4202 | 420,165 | 157,500 | 625.1 | 2,431 / 2,437 |
| 4222 | 422,165 | 157,500 | 625.1 | 2,345 / 2,345 |
| 4242 | 424,165 | 157,500 | 625.1 | 2,424 / 2,424 |
| 4264 | 426,379 | 157,500 | 625.2 | 2,656 / 2,656 |
| 4286 | 428,552 | 157,500 | 625.2 | 3,039 / 3,044 |
| 4307 | 430,650 | 157,500 | 625.2 | 2,230 / 2,230 |
| 4322 | 432,165 | 149,300 | 625.3 | 2,488 / 2,490 |
| 4342 | 434,165 | 149,300 | 625.3 | 1,633 / 1,633 |
| 4362 | 436,165 | 149,300 | 625.4 | 1,837 / 1,845 |
| 4382 | 438,165 | 149,300 | 625.5 | 2,853 / 2,853 |
| 4402 | 440,165 | 149,300 | 625.5 | 1,517 / 1,510 |
| 4422 | 442,165 | 149,300 | 625.6 | 1,569 / 1,569 |
| 4442 | 444,165 | 149,300 | 625.6 | 1,304 / 1,304 |
| 4462 | 446,227 | 149,300 | 625.8 | 2,512 / 2,512 |
| 4482 | 448,165 | 145,100 | 625.8 | 1,571 / 1,571 |
| 4502 | 450,165 | 145,100 | 625.9 | 1,740 / 1,740 |
| 4516 | 451,596 | 145,100 | 625.9 | 1,565 / 1,565 |
| 4531 | 453,148 | 145,100 | 625.9 | 796 / 788 |
| 4560 | 456,048 | 145,100 | 626.4 | 1,028 / 1,028 |
| 4582 | 458,165 | 145,100 | 626.6 | 1,123 / 1,123 |
| 4602 | 460,165 | 145,100 | 626.8 | 1,150 / 1,158 |
| 4622 | 462,165 | 145,100 | 627.0 | 1,208 / 1,211 |
| 4642 | 464,242 | 145,100 | 627.1 | 1,318 / 1,325 |
| 4662 | 466,165 | 145,100 | 627.3 | 1,384 / 1,392 |
| 4682 | 468,165 | 145,100 | 627.4 | 1,656 / 1,656 |
| 4702 | 470,165 | 145,100 | 627.5 | 2,465 / 2,455 |
| 4722 | 472,165 | 145,100 | 627.5 | 845 / 2,257 |
| 4742 | 474,165 | 145,100 | 627.8 | 623 / 2,865 |
| 4769 | 476,858 | 145,100 | 628.4 | 551 / 2,872 |
| 4798 | 479,755 | 145,100 | 629.3 | 1,407 / 761 |
| 4819 | 481,877 | 145,100 | 629.8 | 1,779 / 418 |
| 4842 | 484,165 | 145,100 | 630.7 | 1,556 / 502 |
| 4862 | 486,165 | 145,100 | 631.7 | 991 / 516 |

## Table 12—Limited Detailed Flood Hazard Data

| Cross Section[1] | Stream Station[2] | Flood Discharge *(cfs)* | 1% Annual Chance Water-Surface Elevation *(feet NAVD 88)* | Non-Encroachment Width[3] *(feet)* |
|---|---|---|---|---|
| YADKIN RIVER | | | | |
| 4883 | 488,311 | 145,100 | 632.7 | 1,059 / 336 |
| 4902 | 490,165 | 145,100 | 633.9 | 1,340 / 274 |
| 4922 | 492,165 | 145,100 | 635.1 | 1,674 / 164 |
| 4934 | 493,417 | 145,100 | 636.1 | 2,112 / 321 |
| 4952 | 495,187 | 145,100 | 636.5 | 1,852 / 915 |
| 4974 | 497,412 | 145,100 | 637.2 | 280 / 858 |
| 4975 | 497,517 | 145,100 | 637.2 | 266 / 585 |
| 4985 | 498,477 | 142,300 | 642.3 | 763 / 435 |
| 5000 | 500,045 | 142,300 | 642.3 | 979 / 299 |
| 5022 | 502,165 | 142,300 | 642.9 | 1,214 / 485 |
| 5042 | 504,165 | 142,300 | 643.6 | 752 / 1,437 |
| 5059 | 505,943 | 142,300 | 643.9 | 646 / 1,536 |
| 5077 | 507,695 | 139,100 | 644.3 | 961 / 1,479 |
| 5093 | 509,295 | 139,100 | 644.3 | 575 / 693 |
| 5108 | 510,750 | 139,100 | 644.6 | 1,080 / 416 |
| 5123 | 512,321 | 139,100 | 645.1 | 1,619 / 321 |
| 5142 | 514,165 | 139,100 | 645.3 | 1,022 / 571 |
| 5165 | 516,456 | 139,100 | 645.8 | 867 / 190 |
| 5182 | 518,188 | 139,100 | 646.6 | 1,504 / 214 |
| 5202 | 520,165 | 139,100 | 647.4 | 977 / 491 |
| 5220 | 522,029 | 139,100 | 648.0 | 837 / 619 |
| 5242 | 524,165 | 99,500 | 648.6 | 333 / 2,056 |

[1] This table reflects all modeled cross sections. Some cross sections shown in this table may not appear on the map.
[2] Feet above mouth
[3] Left/right distance from the mapped center of stream to encroachment boundary based on a 1.0 foot or less surcharge (looking downstream).
[4] Elevation includes backwater effects
[5] Flooding controlled by Crane Creek

## 6.1 Vertical and Horizontal Control

### Vertical Datum

All FISs are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. Until recently, the standard vertical datum in use for newly created or revised FISs was the National Geodetic Vertical Datum of 1929 (NGVD 29). With the finalization of the North American Vertical Datum of 1988 (NAVD 88), many FISs are being prepared using NAVD 88 as the referenced vertical datum.

All flood elevations shown on the FIRM for Rowan County are referenced to NAVD 88. Structure and ground elevations in the county must, therefore, be referenced to NAVD 88. It is important to note that FISs for adjacent communities may be referenced to NGVD 29. This may result in BFE differences across political boundaries between the communities.

Prior versions of this FIS were referenced to NGVD 29. When a datum conversion is effected for an FIS, the Flood Profiles, BFEs, and bench marks reflect the new datum values. To compare structural and ground elevations to 1% annual chance flood elevations shown in this FIS, the subject structural and ground elevations must be referenced to the new datum values.

As noted above, the elevations shown in this FIS are referenced to NAVD 88. Ground, structure, and flood elevations may be compared and/or referenced to NGVD 29 by applying a standard conversion factor. The conversion factor for Rowan County is -0.75 feet. The locations used to establish the conversion factor were USGS quadrangle corners that fell within the county, as well as those that were within 2.5 miles outside the county. The benchmarks are referenced to NAVD 88. Table 13, "Datum Conversion Locations and Values," is shown below.

**Table 13—Datum Conversion Locations and Values**

| Latitude | Longitude | Conversion from NGVD 29 to NAVD 88 (feet) |
|---|---|---|
| 35.875 | 80.625 | -0.69 |
| 35.750 | 80.750 | -0.71 |
| 35.750 | 80.625 | -0.71 |
| 35.750 | 80.500 | -0.68 |
| 35.750 | 80.375 | -0.70 |
| 35.625 | 80.750 | -0.71 |
| 35.625 | 80.625 | -0.74 |
| 35.625 | 80.500 | -0.76 |
| 35.625 | 80.375 | -0.79 |
| 35.625 | 80.250 | -0.82 |
| 35.500 | 80.750 | -0.74 |
| 35.500 | 80.625 | -0.77 |
| 35.500 | 80.500 | -0.80 |

**Table 13—Datum Conversion Locations and Values**

| Latitude | Longitude | Conversion from NGVD 29 to NAVD 88 (feet) |
|---|---|---|
| 35.500 | 80.375 | -0.80 |
| 35.500 | 80.250 | -0.80 |
| Average conversion in Rowan County from NGVD 29 to NAVD 88 = -0.75 feet | | |

The BFEs shown on the FIRM represent whole-foot rounded values. For example, a 1% annual chance water-surface elevation of 102.4 feet will appear as 102 on the FIRM and 102.6 feet will appear as 103. Therefore, users who wish to convert the elevations in this FIS to NGVD 29 should apply the stated conversion factor(s) to elevations shown on the Flood Profiles and supporting data tables in the FIS Report, which are shown, at a minimum, to the nearest 0.1 foot.

For more information on NAVD 88, see *Converting the National Flood Insurance Program to the North American Vertical Datum of 1988*, or contact the Vertical Network Branch, National Geodetic Survey, Coast and Geodetic Survey, National Oceanic and Atmospheric Administration, Rockville, Maryland 20910 (http://www.ngs.noaa.gov).

## Vertical Control Monuments

Qualifying bench marks within Rowan County that are cataloged by the National Geodetic Survey (NGS) and entered into the National Spatial Reference System (NSRS) as First or Second Order Vertical, with a vertical stability classification of A, B, or C, are shown and labeled on the FIRM with their 6-character NSRS Permanent Identifier (PID).

The National Geodetic Survey establishes precisely located monuments on the North Carolina Grid System and Bench Marks referenced to a vertical datum (NGVD 1929 and NAVD 1988).

Bench marks cataloged by the NGS and entered into the NSRS vary widely in vertical stability classification. NSRS vertical stability classifications are as follows:

- Stability A: Monuments of the most reliable nature, expected to hold position/elevation well (e.g., mounted in bedrock)
- Stability B: Monuments which generally hold their position/elevation well (e.g., concrete bridge abutment)
- Stability C: Monuments which may be affected by surface ground movements (e.g., concrete monument below frost line)
- Stability D: Mark of questionable or unknown vertical stability (e.g., concrete monument above frost line, or steel witness post)

In addition, when local jurisdictions have established their own vertical monument network, these monuments may also be shown on the FIRM with the appropriate designations. Local monuments will be placed on the FIRM if the community has requested that they be included and if the monuments meet the aforementioned criteria.

North Carolina Geodetic Survey (NCGS) and contractor surveyed vertical control monuments will be shown on the FIRM panels. Those cataloged by NCGS meet similar requirements to the NGS monuments as described above. Most monuments that have been cataloged by NCGS have been established to NGS standards, but have not been submitted to NGS for inclusion into the NSRS. The qualifying criteria for depicting bench marks established by the State's contractors on the new digital FIRM panels include:

- GPS surveying of permanent 3-D survey monuments to 5-centimeter or better local network accuracy guidelines, in accordance with NOAA Technical Memorandum NOS NGS-58 "Guidelines for Establishing GPS-Derived Ellipsoid Heights (Standards: 2 cm and 5 cm)," and conversion to NAVD 88 orthometric heights using NGS' latest geoid mode;
- Requiring a stability classification of "C" or better; and
- Submitting GPS files and station descriptions to NCGS.

To obtain current information for cataloging local bench marks in the NSRS, please visit the Data Sheet page of the NGS website at http://www.ngs.noaa.gov/datasheet.html, or contact the NGS Information Services Branch at:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

Information regarding the NCGS or State contractor bench marks can be obtained through the NCGS website at www.ncgs.state.nc.us, or by phone at (919) 733-3836.

It is important to note that temporary vertical monuments, sometimes called Elevation Reference Marks, are often established during the preparation of a flood hazard analysis for the purpose of establishing local vertical control. Although these monuments are not shown on the FIRM, interested individuals may contact FEMA to access this information.

### Horizontal Datum and Control

The digital files that comprise the FIRM are georeferenced to an established coordinate system. The coordinate system used for the production of this FIRM is North Carolina State Plane (FIPSZONE 3200) referenced to the North American Datum of 1983 (NAD83), GRS80 ellipsoid.

## 6.2 Base Map

County orthophotos, based on 2005 aerial imagery, are used as the base maps for digital FIRM production for Rowan County. The base maps are supplemented with stream centerlines, shoreline, and political boundaries, and road name data from other sources; this includes locally available GIS data.

The projection used in the preparation of this map was the North Carolina State Plane Coordinate System. The horizontal datum was NAD83, GRS80 spheroid. Differences in datum, spheroid, or projection used in the production of FIRMs for adjacent states may result in slight positional differences in map features across the state boundary. These differences do not affect the accuracy of this FIRM.

As part of the North Carolina CTS Initiative, North Carolina digital FIRM panel numbers are consistent with the North Carolina Land Records Management Program (LRMP).

The 11-digit digital FIRM panel numbering system for North Carolina is: SS MM LLLL PP X, where SS = State Federal Information Processing Code (37); MM = Easting-Northing (EN) 1,000,000-foot coordinates; LLLL = LRMP map numbers to include the EN 100,000-foot coordinates, and the EN 10,000-foot coordinates; PP = place holders for additional EN 1,000-foot coordinates; and X = suffix ("J" for the initial edition). North Carolina's State Plane Coordinate System origin is outside the State boundary to the southwest (in Georgia), the eastings range from approximately 0,404,000 (Tennessee border) to 3,040,000 (Atlantic Ocean); and the northings range from approximately 0,045,000 (South Carolina border) to 1,043,000 (Virginia border). Digital FIRM panels were compiled at either 1"=1,000', covering an area of 20,000 feet x 20,000 feet (20" x 20" panels); or at 1"=500', covering an area of 10,000 feet x 10,000 feet (20" x 20" panels). An additional 2 digits (both zeros) are held in reserve as a "place holder" in the event that future FIRMs are printed at a larger scale; e.g., 1"=250', covering an area of 5,000 feet x 5,000 feet for which the 1,000-foot coordinates would either be 0 or 5.

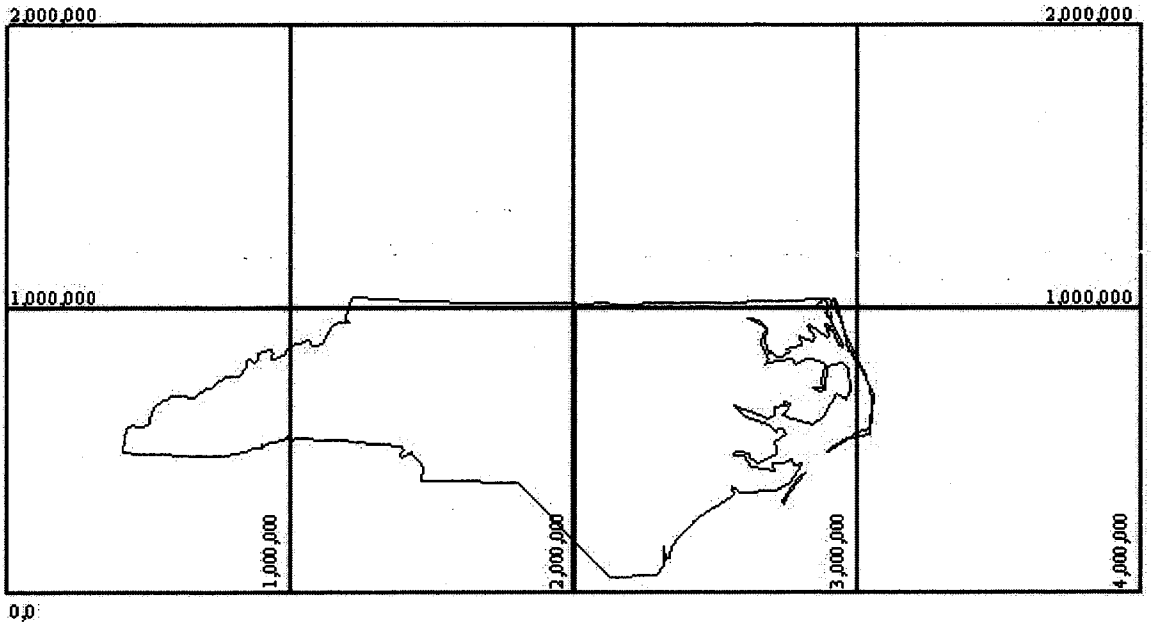


**Figure 2—North Carolina's State Plane Coordinate System**

## 6.3 Floodplain and Floodway Delineation

### Floodplain Delineation

For streams restudied by detailed and limited detailed methods, the 1% and 0.2% annual chance floodplains were delineated using flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using topographic data acquired using airborne Light Detection and Ranging (LIDAR). This LIDAR data was acquired during the winter 2002-2003 flying season.

The topographic data satisfies a vertical root-mean-square error (RMSE) accuracy standard of 20 cm (1.3 feet accuracy at the 95% confidence limit) for the Outer Banks and 25 cm (1.6 feet accuracy at the 95% confidence limit) for those portions of the basin lying west of the Outer Banks. These data could be contoured at roughly a 2-foot vertical contour interval. All elevations were referenced to the NAVD 88 and reflect orthometric heights. Variably spaced, bare-earth digital topographic data in ASCII point file format were combined with imagery (either flown concurrently with the LIDAR data or using existing digital orthophotos) to establish a Triangulated Irregular Network (TIN) of digital elevation points, which include selected breaklines to be used for hydraulic modeling. Furthermore, a uniformly spaced sampling of the TIN resulted in uniformly spaced Digital Elevation Models (DEMs), with 20 ft x 20 ft post spacing, which was generated in multiple file formats.

The 1% annual chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones VE, AO, AH, A99, AR, A, and AE), and the 0.2% annual chance floodplain boundary corresponds to the boundary of areas of moderate flood hazards. In cases where the 1% and 0.2% annual chance floodplain boundaries are close together, only the 1% annual chance floodplain boundaries have been shown.

### Floodway Delineation

The floodways presented in this FIS were computed for certain stream segments on the basis of equal conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations are tabulated for selected cross sections (Table 14, "Floodway Data"). The computed floodway is shown on the FIRM. In cases where the floodway and 1% annual chance floodplain boundaries are either close together or collinear, only the floodway boundary is shown. In areas where the top of the bridge or road is higher than the 1.0-percent annual chance (100-year) flood, the FIRM will show the flood discharge as contained within the structure for emergency management purposes. It is important to note that FEMA and community floodway regulations still apply in and around those areas.

Floodways were not computed for the entire stream reach or portions of the following stream reaches: Baker Branch, Beaver Creek Tributary, Bost Branch, Byrd Road Tributary, Cemetery Creek, Cold Water Creek Tributary, Concord Road Creek, Correll Creek, Crane Creek, Draft Branch, Draft Branch Tributary, Dutch Buffalo Creek Tributary, East Centerview Branch, East Spencer High Creek, Faith Road Branch, Five Forks Tributary, Gravel Pit Branch, Henderson Branch, Henderson Branch Tributary, Hopkins Street Branch, Ice Plant Creek, Innis Street Creek, Jackson Branch, Julian Tributary, Lake Wright Branch, Little Creek, Lomax Creek, Mahaley Branch, Mahaley Branch Tributary, Main Street Tributary, Maple Avenue Branch, Mill Creek (into Grants Creek), Moose Branch, North Fork Tributary, Park Avenue Branch, Park Creek (into Quarry Creek), Peeler Branch, Pine Ridge Branch, Quarry Creek, Railroad Branch, Rocky Branch, Rowan Avenue Park Stream, Sides Branch, Sixth Street Branch, Southern Railroad

Branch, Southside Tributary, Spring Hill Branch, Swearington Branch, Tar Branch, Tar Branch Tributary, Third Street Creek, Thomas Street Creek, Town Branch, Town Creek Tributary, Vance Avenue Branch, Walnut Street Branch, Walton Branch, Wiley Avenue Branch, Woodleaf Branch (East) and Wright Branch.

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Back Creek | | | | | | | | |
| 215 | 21,460 | 325 | 1,903 | 2.3 | 700.1 | 700.1 | 701.1 | 1.0 |
| 230 | 23,000 | 485 | 3,176 | 1.4 | 702.3 | 702.3 | 703.3 | 1.0 |
| 240 | 24,000 | 565 | 2,960 | 1.5 | 703.1 | 703.1 | 704.1 | 1.0 |
| 251 | 25,060 | 338 | 1,352 | 3.2 | 704.6 | 704.6 | 705.6 | 1.0 |
| 260 | 26,000 | 195 | 1,198 | 3.4 | 707.9 | 707.9 | 708.9 | 1.0 |
| 271 | 27,064 | 170 | 1,234 | 3.3 | 710.8 | 710.8 | 711.8 | 1.0 |
| 283 | 28,253 | 310 | 2,110 | 2.0 | 712.4 | 712.4 | 713.4 | 1.0 |
| 295 | 29,493 | 280 | 1,530 | 2.7 | 714.2 | 714.2 | 715.2 | 1.0 |
| 310 | 30,954 | 100 | 798 | 4.9 | 717.8 | 717.8 | 718.8 | 1.0 |
| 320 | 32,000 | 290 | 1,855 | 2.1 | 720.0 | 720.0 | 721.0 | 1.0 |
| Beaver Creek | | | | | | | | |
| 009 | 875 | 255 | 512 | 4.4 | 653.3 | 650.5[2] | 650.5[2] | 0.0 |
| 011 | 1,093 | 165 | 691 | 3.2 | 653.3 | 653.1[2] | 653.4[2] | 0.3 |
| 036 | 3,565 | 360[4] | 520 | 4.0 | 662.2 | 662.2 | 662.2 | 0.0 |
| 066 | 6,615 | 85 | 198 | 8.2 | 697.1 | 697.1 | 697.1 | 0.0 |
| 068 | 6,815 | 135[4] | 427 | 4.0 | 702.4 | 702.4 | 702.4 | 0.0 |
| 100 | 9,970 | 95 | 212 | 6.7 | 718.2 | 718.2 | 718.2 | 0.0 |
| 140[3]-171[3] | | | | | | | | |

[1]Feet above mouth
[2] Elevation computed without backwater effects from Cold Water Creek
[3] Floodway data not computed
[4] Value is inaccurate, as the floodway has been adjusted in this area to match topographic-based floodplain redelineation

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**BACK CREEK – BEAVER CREEK**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Bostian Heights Branch | | | | | | | | |
| 011 | 1,085 | 130 | 254 | 7.7 | 707.6 | 707.6 | 707.6 | 0.0 |
| 043 | 4,270 | 100 | 392 | 4.8 | 719.3 | 719.3 | 719.8 | 0.5 |
| 045 | 4,491 | 100 | 344 | 5.4 | 720.7 | 720.7 | 720.8 | 0.1 |
| 071 | 7,080 | 195 | 536 | 3.3 | 730.0 | 730.0 | 730.8 | 0.8 |
| 098 | 9,765 | 115 | 195 | 7.4 | 739.7 | 739.7 | 739.7 | 0.0 |
| 104 | 10,350 | 110 | 310 | 4.7 | 741.2 | 741.2 | 741.5 | 0.3 |
| 110 | 10,976 | 205 | 847 | 2.2 | 743.9 | 743.9 | 744.9 | 1.0 |
| 118 | 11,796 | 99 | 387 | 2.9 | 748.1 | 748.1 | 748.2 | 0.1 |
| 129 | 12,941 | 50 | 182 | 2.4 | 751.2 | 751.2 | 752.2 | 1.0 |
| 139 | 13,865 | 53 | 415 | 1.1 | 763.0 | 763.0 | 763.5 | 0.5 |
| Church Creek | | | | | | | | |
| 096 | 9,553 | 108 | 524 | 8.9 | 625.7 | 620.3[2] | 621.0 | 0.7 |
| 101 | 10,067 | 216 | 953 | 4.9 | 625.7 | 623.7[2] | 623.7 | 0.0 |
| 110 | 11,049 | 103 | 800 | 5.8 | 625.7 | 625.0[2] | 625.1 | 0.1 |
| 118 | 11,811 | 86 | 682 | 6.8 | 625.8 | 625.8 | 625.9 | 0.1 |
| 137 | 13,708 | 182 | 1,235 | 3.8 | 628.9 | 628.9 | 629.6 | 0.7 |
| 145 | 14,542 | 71 | 611 | 7.6 | 630.4 | 630.4 | 631.1 | 0.7 |
| 157 | 15,724 | 107 | 656 | 7.1 | 633.0 | 633.0 | 633.8 | 0.8 |
| 163 | 16,254 | 58 | 640 | 7.3 | 638.9 | 638.9 | 639.2 | 0.3 |
| 169 | 16,888 | 125 | 955 | 4.9 | 640.4 | 640.4 | 640.8 | 0.4 |
| 178 | 17,826 | 151 | 1,316 | 3.5 | 642.2 | 642.2 | 642.8 | 0.6 |

[1] Feet above mouth

[2]Elevation computed without consideration of backwater effects from Crane Creek (High Rock Lake)

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**BOSTIAN HEIGHTS BRANCH – CHURCH CREEK**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Church Creek | | | | | | | | |
| 187 | 18,711 | 137 | 1,116 | 4.2 | 642.9 | 642.9 | 643.7 | 0.8 |
| 198 | 19,824 | 62 | 710 | 6.1 | 644.4 | 644.4 | 645.3 | 0.9 |
| 214 | 21,387 | 187 | 1,320 | 3.3 | 646.9 | 646.9 | 647.8 | 0.9 |
| 230 | 23,043 | 124 | 1,003 | 4.3 | 649.1 | 649.1 | 649.9 | 0.8 |
| 240 | 24,031 | 172 | 1,570 | 2.7 | 651.5 | 651.5 | 652.4 | 0.9 |
| 253 | 25,281 | 237 | 1,909 | 2.0 | 652.3 | 652.3 | 653.2 | 0.9 |
| 269 | 26,948 | 251 | 1,760 | 2.1 | 654.7 | 654.7 | 655.7 | 1.0 |
| 282 | 28,205 | 165 | 1,066 | 3.4 | 656.0 | 656.0 | 656.9 | 0.9 |
| 297 | 29,667 | 480 | 3,335 | 1.1 | 659.4 | 659.4 | 660.3 | 0.9 |
| 307 | 30,747 | 310 | 1,872 | 1.5 | 659.9 | 659.9 | 660.9 | 1.0 |
| 319 | 31,938 | 87 | 560 | 5.1 | 661.9 | 661.9 | 662.8 | 0.9 |
| 335 | 33,549 | 202 | 1,041 | 2.7 | 667.2 | 667.2 | 667.9 | 0.7 |
| 345 | 34,464 | 139 | 969 | 2.9 | 667.8 | 667.8 | 668.6 | 0.8 |
| 352 | 35,204 | 190 | 1,168 | 2.4 | 668.7 | 668.7 | 669.7 | 1.0 |
| 361 | 36,136 | 173 | 944 | 2.8 | 669.9 | 669.9 | 670.8 | 0.9 |
| 371 | 37,098 | 133 | 651 | 4.1 | 673.1 | 673.1 | 674.0 | 0.9 |
| 380 | 38,002 | 84 | 505 | 5.0 | 681.1 | 681.1 | 682.0 | 0.9 |
| 389 | 38,850 | 115 | 757 | 3.4 | 689.0 | 689.0 | 690.0 | 1.0 |
| 403 | 40,303 | 105 | 660 | 3.8 | 694.8 | 694.8 | 695.6 | 0.8 |
| 416 | 41,598 | 116 | 680 | 3.7 | 698.2 | 698.2 | 699.0 | 0.8 |
| 426 | 42,584 | 147 | 1,019 | 2.4 | 701.9 | 701.9 | 702.6 | 0.7 |
| 435 | 43,508 | 130 | 726 | 3.3 | 703.3 | 703.3 | 704.1 | 0.8 |
| 442 | 44,221 | 110 | 593 | 4.1 | 705.2 | 705.2 | 706.0 | 0.8 |

[1] Feet above mouth

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**CHURCH CREEK**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Church Creek | | | | | | | | |
| 454 | 45,404 | 208 | 1,063 | 2.3 | 708.5 | 708.5 | 709.3 | 0.8 |
| 466 | 46,608 | 118 | 563 | 3.8 | 710.9 | 710.9 | 711.8 | 0.9 |
| 476 | 47,597 | 169 | 1,091 | 2.0 | 715.1 | 715.1 | 716.1 | 1.0 |
| 491 | 49,080 | 186 | 862 | 2.3 | 718.8 | 718.8 | 719.7 | 0.9 |
| 506 | 50,605 | 141 | 704 | 2.7 | 722.6 | 722.6 | 723.5 | 0.9 |
| 519 | 51,922 | 280 | 1,062 | 1.8 | 725.8 | 725.8 | 726.8 | 1.0 |
| 530 | 52,950 | 160 | 1,223 | 0.7 | 732.9 | 732.9 | 733.1 | 0.2 |
| 545 | 54,457 | 53 | 201 | 3.8 | 734.1 | 734.1 | 734.7 | 0.6 |
| 550 | 54,978 | 30 | 100 | 7.6 | 737.0 | 737.0 | 737.0 | 0.0 |
| 558 | 55,750 | 52 | 197 | 3.9 | 742.0 | 742.0 | 742.9 | 0.9 |
| 567 | 56,654 | 28 | 90 | 5.7 | 749.5 | 749.5 | 749.7 | 0.2 |
| 578 | 57,808 | 23 | 80 | 5.9 | 758.5 | 758.5 | 758.5 | 0.0 |
| Coddle Creek | | | | | | | | |
| 1090 | 109,022 | 225 | 1,710 | 3.4 | 673.9 | 673.9 | 674.7 | 0.8 |

[1] Feet above mouth

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**CHURCH CREEK – CODDLE CREEK**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Cold Water Creek | | | | | | | | |
| 821 | 82,100 | 145 | 1,351 | 3.1 | 653.3 | 653.3 | 654.3 | 1.0 |
| 841 | 84,060 | 460 | 3,114 | 1.1 | 654.7 | 654.7 | 655.7 | 1.0 |
| 860 | 86,010 | 240 | 1,690 | 1.8 | 655.3 | 655.3 | 656.3 | 1.0 |
| 863 | 86,290 | 110 | 596 | 5.2 | 655.3 | 655.3 | 656.1 | 0.8 |
| 882 | 88,160 | 125 | 683 | 4.1 | 661.9 | 661.9 | 662.9 | 1.0 |
| 916 | 91,565 | 220 | 973 | 2.5 | 670.4 | 670.4 | 671.4 | 1.0 |
| 918 | 91,838 | 160 | 505 | 4.7 | 671.3 | 671.3 | 672.0 | 0.7 |
| 945 | 94,500 | 190[2] | 542 | 4.2 | 683.0 | 683.0 | 683.0 | 0.0 |
| 964 | 96,368 | 120 | 659 | 3.3 | 692.4 | 629.4 | 693.2 | 0.8 |
| 989 | 98,935 | 195 | 324 | 5.3 | 710.8 | 710.8 | 710.8 | 0.0 |
| 991 | 99,115 | 160 | 973 | 1.7 | 714.7 | 714.7 | 715.2 | 0.5 |
| 1014 | 101,400 | 205 | 350 | 4.9 | 729.1 | 729.1 | 729.1 | 0.0 |

[1] Feet above mouth

[2] Value is inaccurate, as the floodway has been adjusted in this area to match topographic-based floodplain redelineation

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**COLD WATER CREEK**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Crane Creek | | | | | | | | |
| 266 | 26,636 | 1,079 | 6,261 | 2.1 | 626.0 | 626.0 | 626.0 | 0.0 |
| 276 | 27,624 | 789 | 4,325 | 3.0 | 626.3 | 626.3 | 626.3 | 0.0 |
| 286 | 28,624 | 1,181 | 6,986 | 1.8 | 626.8 | 626.8 | 627.1 | 0.3 |
| 301 | 30,124 | 1,087 | 6,178 | 1.6 | 627.3 | 627.3 | 627.8 | 0.5 |
| 311 | 31,124 | 405 | 2,287 | 4.3 | 628.9 | 628.9 | 629.6 | 0.7 |
| 326 | 32,624 | 609 | 4,689 | 2.1 | 633.3 | 633.3 | 634.3 | 1.0 |
| 333 | 33,300 | 592 | 4,207 | 2.3 | 634.1 | 634.1 | 635.0 | 0.9 |
| 351 | 35,124 | 345 | 2,971 | 3.3 | 638.1 | 638.1 | 638.9 | 0.8 |
| 366 | 36,624 | 452 | 3,065 | 3.2 | 640.6 | 640.6 | 641.5 | 0.9 |
| 381 | 38,124 | 473 | 3,105 | 3.1 | 643.2 | 643.2 | 644.2 | 1.0 |
| 396 | 39,624 | 372 | 2,219 | 4.4 | 646.3 | 646.3 | 647.2 | 0.9 |
| 406 | 40,624 | 277 | 2,285 | 4.2 | 650.2 | 650.2 | 651.1 | 0.9 |
| 416 | 41,624 | 380 | 3,232 | 3.0 | 652.4 | 652.4 | 653.3 | 0.9 |
| 426 | 42,624 | 356 | 2,624 | 3.6 | 654.5 | 654.5 | 655.4 | 0.9 |
| 436 | 43,624 | 567 | 4,114 | 2.3 | 657.0 | 657.0 | 657.9 | 0.9 |
| 446 | 44,624 | 207 | 1,803 | 5.2 | 658.7 | 658.7 | 659.5 | 0.8 |
| 455 | 45,485 | 215 | 2,032 | 4.6 | 661.0 | 661.0 | 661.9 | 0.9 |
| 467 | 46,686 | 146 | 1,345 | 7.0 | 664.8 | 664.8 | 665.4 | 0.6 |
| 476 | 47,624 | 534 | 4,463 | 2.1 | 668.7 | 668.7 | 669.4 | 0.7 |
| 491 | 49,124 | 739 | 4,049 | 2.3 | 670.3 | 670.3 | 671.1 | 0.8 |
| 501 | 50,124 | 443 | 2,884 | 3.2 | 673.3 | 673.3 | 674.3 | 1.0 |
| 512 | 51,199 | 587 | 3,595 | 2.5 | 675.6 | 675.6 | 676.5 | 0.9 |

[1]Feet above mouth

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**CRANE CREEK**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Crane Creek | | | | | | | | |
| 523 | 52,284 | 516 | 3,310 | 2.8 | 678.0 | 678.0 | 678.9 | 0.9 |
| 544 | 54,395 | 271 | 2,080 | 4.4 | 684.8 | 684.8 | 685.6 | 0.8 |
| 553 | 55,324 | 161 | 1,469 | 5.8 | 686.7 | 686.7 | 687.6 | 0.9 |
| 561 | 56,124 | 183 | 2,015 | 4.2 | 692.0 | 692.0 | 692.9 | 0.9 |
| 570 | 56,950 | 230 | 2,465 | 3.5 | 693.5 | 693.5 | 694.4 | 0.9 |
| 581 | 58,124 | 511 | 4,950 | 1.7 | 694.8 | 694.8 | 695.8 | 1.0 |
| 592 | 59,201 | 431 | 3,569 | 2.4 | 695.8 | 695.8 | 696.7 | 0.9 |
| 601 | 60,129 | 401 | 3,981 | 2.1 | 698.6 | 698.6 | 699.5 | 0.9 |
| 631 | 63,124 | 450 | 4,243 | 2.0 | 702.6 | 702.6 | 703.6 | 1.0 |
| 642 | 64,199 | 594 | 4,608 | 1.8 | 703.2 | 703.2 | 704.2 | 1.0 |
| 657 | 65,720 | 618 | 3,735 | 2.2 | 705.8 | 705.8 | 706.0 | 0.2 |
| 649[3] | 64,900 | 465 | 2,735 | 2.5 | 706.9 | 706.9 | 707.9 | 1.0 |
| 664 | 66,350 | 400 | 2,126 | 3.2 | 711.6 | 711.6 | 712.6 | 1.0 |
| 666 | 66,550 | 450 | 3,610 | 1.9 | 713.0 | 713.0 | 714.0 | 1.0 |
| 689 | 68,900 | 575 | 3,243 | 2.1 | 715.9 | 715.9 | 716.9 | 1.0 |
| 714 | 71,400 | 300 | 2,399 | 2.6 | 719.9 | 719.9 | 720.9 | 1.0 |
| 762 | 76,200 | 240 | 1,485 | 3.2 | 727.6 | 727.6 | 728.6 | 1.0 |
| 782 | 78,200 | 350 | 2,371 | 2.0 | 731.7 | 731.7 | 732.7 | 1.0 |
| 784 | 78,400 | 395 | 2,517 | 1.9 | 732.5 | 732.5 | 733.5 | 1.0 |
| 794 | 79,400 | 375 | 2,254 | 2.1 | 733.6 | 733.6 | 734.6 | 1.0 |
| 805 | 80,450 | 770[2] | 4,163 | 1.0 | 734.6 | 734.6 | 735.6 | 1.0 |
| 819 | 81,920 | 515 | 1,891 | 2.3 | 736.1 | 736.1 | 737.1 | 1.0 |

[1]Feet above mouth

[2] Value is inaccurate, as the floodway has been adjusted in this area to match topographic-based floodplain redelineation

[3] Downstream flood hazard information is studied by new detailed methods. These methods reflect more detailed and up-to-date stream channel configurations. As a result, the stream channel distances may not agree with the adjoining redelineated portion of the stream.

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**CRANE CREEK**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Crane Creek | | | | | | | | |
| 821 | 82,120 | 670 | 4,478 | 1.0 | 739.9 | 739.9 | 740.9 | 1.0 |
| 844 | 84,350 | 340 | 1,145 | 3.1 | 741.4 | 741.4 | 742.4 | 1.0 |
| 863 | 86,260 | 310 | 1,786 | 2.0 | 747.7 | 747.7 | 748.7 | 1.0 |
| 875 | 87,470 | 375 | 1,946 | 1.8 | 749.7 | 749.7 | 750.7 | 1.0 |
| 877 | 87,670 | 450 | 3,114 | 1.0 | 752.1 | 752.1 | 753.1 | 1.0 |
| 888 | 88,800 | 480 | 2,831 | 0.9 | 752.4 | 752.4 | 753.4 | 1.0 |
| 901 | 90,105 | 280 | 423 | 3.0 | 753.3 | 753.3 | 754.3 | 1.0 |
| 903[2]-981[2] | | | | | | | | |
| Draft Branch | | | | | | | | |
| 008 | 800 | 370 | 1,153 | 2.8 | 671.6 | 661.4[3] | 662.4 | 1.0 |
| 024 | 2,400 | 335 | 1,411 | 1.8 | 671.6 | 665.6[3] | 666.6 | 1.0 |
| 042 | 4,225 | 340 | 1,259 | 2.1 | 671.6 | 668.9[3] | 669.9 | 1.0 |
| 059 | 5,900 | 195 | 922 | 2.8 | 672.7 | 672.7 | 673.7 | 1.0 |
| 077 | 7,650 | 215 | 940 | 2.3 | 676.8 | 676.8 | 677.8 | 1.0 |
| 079 | 7,850 | 310 | 1,774 | 1.2 | 678.7 | 678.7 | 679.5 | 0.8 |
| 102 | 10,200 | 355 | 1,123 | 1.8 | 686.6 | 686.6 | 687.5 | 0.9 |
| 128 | 12,800 | 340 | 1,509 | 1.4 | 690.4 | 690.4 | 690.8 | 0.4 |
| 143 | 14,300 | 225 | 806 | 2.3 | 692.4 | 692.4 | 692.9 | 0.5 |
| 155 | 15,500 | 185 | 555 | 3.4 | 697.9 | 697.9 | 698.4 | 0.5 |
| 160 | 15,950 | 220 | 842 | 2.2 | 699.9 | 699.9 | 700.4 | 0.5 |
| 177 | 17,720 | 160 | 550 | 2.2 | 704.6 | 704.6 | 705.1 | 0.5 |
| 179[2]-253[2] | | | | | | | | |

[1] Feet above mouth

[2] Floodway data not computed

[3] Elevation computed without consideration of backwater effects from Grants Creek

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**CRANE CREEK – DRAFT BRANCH**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Dutch Buffalo Creek | | | | | | | | |
| 1082 | 108,200 | 310 | 1,041 | 3.3 | 684.0 | 684.0 | 685.0 | 1.0 |
| 1090 | 109,000 | 205 | 828 | 4.1 | 687.1 | 687.1 | 688.1 | 1.0 |
| 1110 | 111,000 | 340 | 1,711 | 1.9 | 691.4 | 691.4 | 692.3 | 0.9 |
| 1125 | 112,465 | 150 | 634 | 5.0 | 694.5 | 694.5 | 695.2 | 0.7 |
| 1127 | 112,686 | 150 | 640 | 4.9 | 696.2 | 696.2 | 696.9 | 0.7 |
| 1150 | 115,000 | 240 | 1,306 | 2.3 | 703.0 | 703.0 | 703.9 | 0.9 |
| 1160 | 116,000 | 130 | 685 | 4.4 | 705.6 | 705.6 | 706.4 | 0.8 |
| 1175 | 117,450 | 160 | 713 | 1.9 | 710.2 | 710.2 | 711.1 | 0.9 |
| 1206 | 120,640 | 50 | 79 | 10.8 | 726.5 | 726.5 | 726.5 | 0.0 |
| 1209 | 120,861 | 50 | 117 | 7.3 | 731.7 | 731.7 | 731.7 | 0.0 |
| Fourth Creek | | | | | | | | |
| 859 | 85,907 | 800 | 7,550 | 1.6 | 729.5 | 729.5 | 730.4 | 0.9 |

[1]Feet above mouth

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**DUTCH BUFFALO CREEK – FOURTH CREEK**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Grants Creek | | | | | | | | |
| 090 | 9,000 | 843 | 7,233 | 1.7 | 644.2 | 634.5[2] | 635.5 | 1.0 |
| 100 | 10,027 | 1,210 | 10,695 | 1.2 | 644.2 | 634.7[2] | 635.7 | 1.0 |
| 110 | 11,000 | 675 | 4,741 | 2.6 | 644.2 | 634.9[2] | 635.9 | 1.0 |
| 120 | 12,000 | 1,197 | 11,465 | 1.1 | 644.2 | 635.7[2] | 636.6 | 0.9 |
| 130 | 13,000 | 1,167 | 10,500 | 1.2 | 644.2 | 635.8[2] | 636.7 | 0.9 |
| 140 | 14,000 | 842 | 7,406 | 1.6 | 644.2 | 636.3[2] | 637.2 | 0.9 |
| 150 | 15,000 | 520 | 5,008 | 2.4 | 644.2 | 637.2[2] | 638.1 | 0.9 |
| 160 | 16,000 | 687 | 6,573 | 1.8 | 644.2 | 637.9[2] | 638.8 | 0.9 |
| 170 | 17,000 | 620 | 5,922 | 2.0 | 644.2 | 638.4[2] | 639.4 | 1.0 |
| 180 | 18,000 | 606 | 6,230 | 1.9 | 644.2 | 639.4[2] | 640.3 | 0.9 |
| 187 | 18,696 | 677 | 6,806 | 1.8 | 644.2 | 639.8[2] | 640.7 | 0.9 |
| 196 | 19,571 | 492 | 5,080 | 2.4 | 644.2 | 640.8[2] | 641.5 | 0.7 |
| 205 | 20,500 | 856 | 8,569 | 1.4 | 644.2 | 641.3[2] | 642.1 | 0.8 |
| 215 | 21,500 | 862 | 7,574 | 1.5 | 644.2 | 641.6[2] | 642.5 | 0.9 |
| 231 | 23,066 | 532 | 3,907 | 3.0 | 644.2 | 643.3[2] | 644.2 | 0.9 |
| 240 | 24,000 | 591 | 5,325 | 2.2 | 645.3 | 645.3 | 645.8 | 0.5 |
| 255 | 25,500 | 707 | 5,718 | 2.0 | 646.5 | 646.5 | 647.4 | 0.9 |
| 265 | 26,500 | 995 | 6,356 | 1.8 | 647.1 | 647.1 | 648.1 | 1.0 |
| 275 | 27,500 | 1,178 | 8,134 | 1.4 | 648.0 | 648.0 | 648.8 | 0.8 |
| 286 | 28,565 | 679 | 5,103 | 2.1 | 649.4 | 649.4 | 650.2 | 0.8 |
| 295 | 29,500 | 900 | 6,628 | 1.6 | 650.1 | 650.1 | 650.9 | 0.8 |
| 305 | 30,500 | 832 | 5,380 | 2.0 | 650.6 | 650.6 | 651.5 | 0.9 |

[1]Feet above mouth
[2]Elevations computed without consideration of backwater effects from Yadkin River

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**GRANTS CREEK**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Grants Creek | | | | | | | | |
| 314 | 31,369 | 215 | 1,611 | 6.7 | 651.2 | 651.2 | 652.2 | 1.0 |
| 319 | 31,942 | 292 | 2,320 | 4.6 | 655.5 | 655.5 | 655.7 | 0.2 |
| 325 | 32,500 | 304 | 3,244 | 3.3 | 657.5 | 657.5 | 657.7 | 0.2 |
| 334 | 33,383 | 616 | 6,952 | 1.6 | 658.1 | 658.1 | 659.1 | 1.0 |
| 339 | 33,937 | 921 | 9,764 | 1.1 | 658.3 | 658.3 | 659.3 | 1.0 |
| 345 | 34,500 | 848 | 8,641 | 1.2 | 658.5 | 658.5 | 659.5 | 1.0 |
| 355 | 35,465 | 535 | 4,760 | 2.2 | 658.8 | 658.8 | 659.8 | 1.0 |
| 366 | 36,599 | 441 | 5,199 | 2.0 | 662.8 | 662.8 | 663.4 | 0.6 |
| 374 | 37,383 | 670 | 7,467 | 1.4 | 663.0 | 663.0 | 663.8 | 0.8 |
| 381 | 38,068 | 682 | 6,360 | 1.6 | 663.3 | 663.3 | 664.1 | 0.8 |
| 387 | 38,699 | 397 | 4,148 | 2.5 | 663.6 | 663.6 | 664.4 | 0.8 |
| 396 | 39,597 | 208 | 2,029 | 5.1 | 663.9 | 663.9 | 664.6 | 0.7 |
| 404 | 40,444 | 409 | 5,169 | 2.0 | 667.4 | 667.4 | 667.9 | 0.5 |
| 410 | 41,000 | 291 | 3,578 | 2.9 | 667.8 | 667.8 | 668.5 | 0.7 |
| 420 | 42,000 | 198 | 2,080 | 5.0 | 668.7 | 668.7 | 669.4 | 0.7 |
| 430 | 43,000 | 609 | 5,496 | 1.7 | 670.7 | 670.7 | 671.3 | 0.6 |
| 443 | 44,337 | 987 | 14,088 | 0.7 | 671.6 | 671.6 | 672.5 | 0.9 |
| 454 | 45,355 | 906 | 11,189 | 0.8 | 671.6 | 671.6 | 672.6 | 1.0 |
| 460 | 46,000 | 928 | 11,267 | 0.8 | 671.7 | 671.7 | 672.7 | 1.0 |
| 470 | 47,000 | 928 | 10,979 | 0.8 | 671.8 | 671.8 | 672.8 | 1.0 |
| 481 | 48,124 | 383 | 3,384 | 2.5 | 672.0 | 672.0 | 672.9 | 0.9 |
| 493 | 49,269 | 281 | 3,075 | 2.8 | 673.9 | 673.9 | 674.4 | 0.5 |

[1]Feet above mouth

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**GRANTS CREEK**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Grants Creek | | | | | | | | |
| 500 | 50,000 | 447 | 4,733 | 1.8 | 674.4 | 674.4 | 675.1 | 0.7 |
| 510 | 51,000 | 241 | 2,178 | 3.8 | 674.7 | 674.7 | 675.4 | 0.7 |
| 519 | 51,895 | 467 | 4,700 | 1.8 | 676.9 | 676.9 | 677.6 | 0.7 |
| 530 | 53,000 | 274 | 2,738 | 2.9 | 677.8 | 677.8 | 678.6 | 0.8 |
| 540 | 53,970 | 398 | 4,902 | 1.6 | 678.9 | 678.9 | 679.6 | 0.7 |
| 549 | 54,912 | 492 | 4,932 | 1.6 | 679.2 | 679.2 | 680.1 | 0.9 |
| 559 | 55,917 | 330 | 3,436 | 2.3 | 679.7 | 679.7 | 680.6 | 0.9 |
| 577 | 57,699 | 466 | 4,291 | 1.8 | 681.2 | 681.2 | 682.1 | 0.9 |
| 585 | 58,500 | 860 | 8,502 | 0.9 | 681.7 | 681.7 | 682.6 | 0.9 |
| 595 | 59,500 | 682 | 6,074 | 1.3 | 681.9 | 681.9 | 682.8 | 0.9 |
| 605 | 60,500 | 735 | 6,215 | 1.3 | 682.3 | 682.3 | 683.2 | 0.9 |
| 615 | 61,500 | 664 | 5,130 | 1.5 | 682.6 | 682.6 | 683.5 | 0.9 |
| 624 | 62,387 | 328 | 2,047 | 3.7 | 683.1 | 683.1 | 684.0 | 0.9 |
| 635 | 63,457 | 260 | 2,094 | 3.6 | 686.3 | 686.3 | 686.8 | 0.5 |
| 645 | 64,500 | 619 | 6,591 | 1.1 | 688.8 | 688.8 | 689.4 | 0.6 |
| 655 | 65,500 | 673 | 6,717 | 1.1 | 689.0 | 689.0 | 689.7 | 0.7 |
| 662 | 66,164 | 562 | 5,235 | 1.4 | 689.2 | 689.2 | 690.0 | 0.8 |
| 670 | 67,000 | 518 | 4,586 | 1.5 | 689.8 | 689.8 | 690.5 | 0.7 |
| 680 | 68,000 | 395 | 3,062 | 2.3 | 690.2 | 690.2 | 691.0 | 0.8 |
| 695 | 69,500 | 183 | 1,606 | 3.9 | 692.3 | 692.3 | 692.9 | 0.6 |
| 710 | 71,000 | 600 | 5,383 | 1.2 | 693.8 | 693.8 | 694.5 | 0.7 |
| 720 | 72,000 | 641 | 5,077 | 1.2 | 694.1 | 694.1 | 694.8 | 0.7 |

[1]Feet above mouth

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**GRANTS CREEK**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Grants Creek | | | | | | | | |
| 731 | 73,097 | 447 | 3,201 | 1.9 | 694.7 | 694.7 | 695.5 | 0.8 |
| 740 | 74,000 | 192 | 1,199 | 4.7 | 695.9 | 695.9 | 696.5 | 0.6 |
| 751 | 75,080 | 148 | 1,533 | 3.7 | 701.8 | 701.8 | 702.0 | 0.2 |
| 760 | 76,000 | 538 | 5,147 | 1.1 | 702.2 | 702.2 | 702.9 | 0.7 |
| 770 | 76,961 | 646 | 5,492 | 0.9 | 702.6 | 702.6 | 703.3 | 0.7 |
| 781 | 78,084 | 644 | 4,930 | 1.0 | 702.8 | 702.8 | 703.6 | 0.8 |
| 796 | 79,605 | 195 | 1,078 | 4.4 | 704.1 | 704.1 | 704.7 | 0.6 |
| 806 | 80,551 | 77 | 729 | 6.5 | 706.2 | 706.2 | 707.2 | 1.0 |
| 816 | 81,614 | 225 | 1,798 | 2.6 | 709.5 | 709.5 | 709.7 | 0.2 |
| 825 | 82,500 | 368 | 2,578 | 1.8 | 709.8 | 709.8 | 710.4 | 0.6 |
| 837 | 83,651 | 318 | 1,959 | 2.4 | 710.3 | 710.3 | 711.2 | 0.9 |
| 845 | 84,500 | 198 | 1,134 | 3.8 | 711.4 | 711.4 | 712.3 | 0.9 |
| 855 | 85,535 | 542 | 3,168 | 1.4 | 714.2 | 714.2 | 715.0 | 0.8 |
| 865 | 86,500 | 319 | 1,586 | 2.6 | 714.9 | 714.9 | 715.6 | 0.7 |
| 877 | 87,672 | 74 | 492 | 6.4 | 718.5 | 718.5 | 718.8 | 0.3 |
| 889 | 88,941 | 75 | 402 | 7.8 | 722.2 | 722.2 | 722.8 | 0.6 |
| 900 | 89,983 | 125 | 792 | 4.0 | 726.7 | 726.7 | 727.7 | 1.0 |
| 910 | 90,981 | 83 | 534 | 5.6 | 729.6 | 729.6 | 730.4 | 0.8 |
| 920 | 92,041 | 142 | 631 | 4.8 | 734.4 | 734.4 | 734.5 | 0.1 |
| 930 | 93,000 | 220 | 1,029 | 2.9 | 736.1 | 736.1 | 736.9 | 0.8 |

[1]Feet above mouth

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**GRANTS CREEK**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Grants Creek | | | | | | | | |
| 940 | 94,000 | 166 | 879 | 3.0 | 740.1 | 740.1 | 740.7 | 0.6 |
| 951 | 95,092 | 155 | 804 | 3.2 | 743.0 | 743.0 | 743.7 | 0.7 |
| 960 | 96,014 | 52 | 311 | 8.2 | 744.9 | 744.9 | 745.8 | 0.9 |
| 970 | 97,000 | 55 | 262 | 8.9 | 749.1 | 749.1 | 749.8 | 0.7 |
| 980 | 98,031 | 50 | 337 | 7.0 | 754.9 | 754.9 | 755.8 | 0.9 |
| 990 | 98,997 | 42 | 289 | 5.0 | 760.4 | 760.4 | 760.9 | 0.5 |
| 1000 | 100,000 | 38 | 201 | 7.3 | 774.1 | 774.1 | 774.9 | 0.8 |
| 1010 | 101,000 | 101 | 482 | 2.5 | 782.6 | 782.6 | 783.2 | 0.6 |
| 1020 | 102,000 | 25 | 101 | 9.7 | 785.5 | 785.5 | 785.5 | 0.0 |
| 1030 | 103,000 | 35 | 120 | 6.6 | 792.9 | 792.9 | 792.9 | 0.0 |
| 1039 | 103,920 | 33 | 83 | 9.0 | 801.0 | 801.0 | 801.0 | 0.0 |
| 1046 | 104,597 | 25 | 73 | 6.7 | 808.9 | 808.9 | 809.3 | 0.4 |
| 1052 | 105,247 | 25 | 118 | 4.2 | 820.0 | 820.0 | 821.0 | 1.0 |
| 1060 | 105,982 | 26 | 117 | 4.2 | 835.3 | 835.3 | 835.4 | 0.1 |

[1]Feet above mouth

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**GRANTS CREEK**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Irish Buffalo Creek | | | | | | | | |
| 998 | 99,770 | 50 | 335 | 5.9 | 737.3 | 737.3 | 737.8 | 0.5 |
| 1005 | 100,500 | 48 | 327 | 5.8 | 739.6 | 739.6 | 740.4 | 0.8 |
| 1015 | 101,476 | 43 | 286 | 5.8 | 743.8 | 743.8 | 744.2 | 0.4 |
| 1023 | 102,263 | 38 | 266 | 6.3 | 745.5 | 745.5 | 745.7 | 0.2 |
| 1031 | 103,088 | 43 | 310 | 5.4 | 749.7 | 749.7 | 749.7 | 0.0 |
| 1041 | 104,119 | 39 | 232 | 6.6 | 755.0 | 755.0 | 755.0 | 0.0 |
| 1048 | 104,817 | 37 | 306 | 4.5 | 757.3 | 757.3 | 757.4 | 0.1 |
| 1060 | 105,995 | 30 | 204 | 6.7 | 761.4 | 761.4 | 761.5 | 0.1 |
| 1071 | 107,092 | 36 | 176 | 7.8 | 769.0 | 769.0 | 769.1 | 0.1 |
| 1079 | 107,946 | 39 | 171 | 4.9 | 774.4 | 774.4 | 774.7 | 0.3 |
| 1089 | 108,855 | 28 | 107 | 3.7 | 779.3 | 779.3 | 779.5 | 0.2 |
| 1100 | 109,975 | 19 | 67 | 5.9 | 788.7 | 788.7 | 789.0 | 0.3 |
| 1112 | 111,210 | 22 | 58 | 6.8 | 800.8 | 800.8 | 800.9 | 0.1 |
| 1121 | 112,103 | 15 | 49 | 5.6 | 811.7 | 811.7 | 812.0 | 0.3 |
| 1131 | 113,080 | 20 | 53 | 5.1 | 832.9 | 832.9 | 833.2 | 0.3 |
| 1141 | 114,077 | 15 | 30 | 9.0 | 865.1 | 865.1 | 865.1 | 0.0 |
| Julian Tributary | | | | | | | | |
| 013 | 1,300 | 130 | 446 | 3.9 | 714.5 | 714.5 | 715.5 | 1.0 |
| 036 | 3.600 | 60 | 263 | 5.4 | 721.9 | 721.9 | 722.4 | 0.5 |
| 044 | 4,400 | 115 | 204 | 5.3 | 726.1 | 726.1 | 726.1 | 0.0 |
| 046 | 4,598 | 120 | 233 | 4.6 | 727.0 | 727.0 | 727.0 | 0.0 |
| 073[2] - 096[2] | | | | | | | | |

[1] Feet above mouth
[2] Floodway data not computed

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**IRISH BUFFALO CREEK – JULIAN TRIBUTARY**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Klutz Branch | | | | | | | | |
| 001 | 121 | 17 | 46 | 9.6 | 758.8 | 758.3[3] | 758.3 | 0.0 |
| 006 | 559 | 25 | 53 | 8.3 | 765.9 | 765.9 | 765.9 | 0.0 |
| 013 | 1,253 | 17 | 63 | 5.9 | 776.1 | 776.1 | 776.1 | 0.0 |
| Lake Wright Branch | | | | | | | | |
| 009 | 875 | 305 | 1,214 | 2.2 | 714.9 | 714.5[4] | 715.5[2] | 1.0 |
| 023 | 2,250 | 85 | 548 | 4.6 | 719.3 | 719.3 | 720.3 | 1.0 |
| 025 | 2,450 | 80 | 564 | 4.5 | 720.3 | 720.3 | 721.2 | 0.9 |
| 051 | 5,080 | 340 | 1,895 | 1.3 | 724.2 | 724.2 | 725.2 | 1.0 |
| 069 | 6,930 | 225 | 1,012 | 2.2 | 730.6 | 730.6 | 730.7 | 0.1 |
| 105 | 10,460 | 180 | 451 | 4.4 | 743.0 | 743.0 | 743.0 | 0.0 |
| 106 | 10,639 | 85 | 520 | 3.8 | 744.7 | 744.7 | 745.6 | 0.9 |
| 134 | 13,400 | 240 | 1,376 | 1.4 | 748.7 | 748.7 | 749.7 | 1.0 |
| 165 | 16,475 | 325 | 413 | 4.0 | 764.4 | 764.4 | 764.4 | 0.0 |
| 195 | 19,468 | 75 | 174 | 8.5 | 792.1 | 792.1 | 792.1 | 0.0 |
| 196[2]-269[2] | | | | | | | | |

[1]Feet above mouth
[2]Floodway data not computed
[3]Elevation computed without consideration of backwater effects from Legion Park Branch
[4]Elevation computed without consideration of backwater effects from Grants Creek

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**KLUTZ BRANCH – LAKE WRIGHT BRANCH**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Legion Park Branch | | | | | | | | |
| 003 | 344 | 42 | 143 | 6.4 | 706.5 | 706.5 | 706.8 | 0.3 |
| 009 | 922 | 31 | 152 | 6.0 | 712.7 | 712.7 | 713.2 | 0.5 |
| 016 | 1,577 | 68 | 395 | 2.3 | 719.8 | 719.8 | 720.8 | 1.0 |
| 025 | 2,507 | 65 | 231 | 3.7 | 727.5 | 727.5 | 728.4 | 0.9 |
| 034 | 3,431 | 40 | 220 | 3.6 | 737.4 | 737.4 | 738.2 | 0.8 |
| 040 | 4,039 | 41 | 164 | 4.7 | 743.5 | 743.5 | 744.4 | 0.9 |
| 046 | 4,640 | 29 | 103 | 7.0 | 749.7 | 749.7 | 749.7 | 0.0 |
| 053 | 5,268 | 28 | 154 | 4.3 | 757.8 | 757.8 | 758.8 | 1.0 |
| 059 | 5,867 | 21 | 56 | 6.9 | 768.0 | 768.0 | 768.1 | 0.1 |
| 067 | 6,650 | 27 | 170 | 2.3 | 787.0 | 787.0 | 787.4 | 0.4 |
| 072 | 7,205 | 22 | 73 | 3.8 | 795.8 | 795.8 | 796.8 | 1.0 |

[1]Feet above mouth

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**LEGION PARK BRANCH**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Little Creek | | | | | | | | |
| 002 | 200 | 225 | 946 | 2.8 | 691.2 | 684.7[2] | 685.7 | 1.0 |
| 021 | 2,075 | 190 | 965 | 2.7 | 691.2 | 689.7[2] | 690.7 | 1.0 |
| 023 | 2,275 | 205 | 1,240 | 2.1 | 691.2 | 691.1[2] | 692.0 | 0.9 |
| 047 | 4,725 | 360 | 1,540 | 1.7 | 694.0 | 694.0 | 695.0 | 1.0 |
| 062 | 6,225 | 365 | 1,399 | 1.8 | 696.2 | 696.2 | 697.2 | 1.0 |
| 064 | 6,425 | 325 | 1,744 | 1.5 | 698.9 | 698.9 | 699.0 | 0.1 |
| 102 | 10,225 | 425 | 2,143 | 1.1 | 700.4 | 700.4 | 701.1 | 0.7 |
| 113 | 11,307 | 375[4] | 564 | 4.3 | 702.9 | 702.9 | 702.9 | 0.0 |
| 119 | 11,862 | 130 | 517 | 4.5 | 710.3 | 710.3 | 711.2 | 0.9 |
| 120 | 12,038 | 160 | 682 | 3.4 | 711.7 | 711.7 | 712.4 | 0.7 |
| 152 | 15,245 | 250 | 1,207 | 1.7 | 718.2 | 718.2 | 718.7 | 0.5 |
| 182 | 18,190 | 230 | 368 | 4.7 | 725.5 | 725.5 | 725.5 | 0.0 |
| 184 | 18,361 | 175 | 746 | 2.3 | 729.7 | 729.7 | 729.8 | 0.1 |
| 214 | 21,435 | 160 | 571 | 2.5 | 739.7 | 739.7 | 740.2 | 0.5 |
| 244 | 24,365 | 50 | 286 | 4.1 | 750.0 | 750.0 | 750.5 | 0.5 |
| 245[3]-335[3] | | | | | | | | |

[1] Feet above mouth

[2] Elevation computed without consideration of backwater effects from Grants Creek

[3] Floodway data not computed

[4] Value is inaccurate, as the floodway has been adjusted in this area to match topographic-based floodplain redelineation

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**LITTLE CREEK**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Petrea Branch | | | | | | | | |
| 010 | 976 | 57 | 205 | 4.8 | 715.2 | 715.2 | 716.0 | 0.8 |
| 016 | 1,648 | 87 | 301 | 3.3 | 720.1 | 720.1 | 720.7 | 0.6 |
| 024 | 2,442 | 60 | 222 | 4.2 | 724.9 | 724.9 | 725.8 | 0.9 |
| 031 | 3,123 | 40 | 152 | 4.3 | 732.7 | 732.7 | 733.3 | 0.6 |
| 035 | 3,498 | 22 | 121 | 5.4 | 743.1 | 743.1 | 743.9 | 0.8 |
| 043 | 4,258 | 29 | 126 | 4.7 | 753.8 | 753.8 | 754.3 | 0.5 |
| 051 | 5,075 | 43 | 254 | 2.0 | 764.9 | 764.9 | 765.2 | 0.3 |
| Town Creek | | | | | | | | |
| 023 | 2,300 | 765 | 3,474 | 1.6 | 626.8 | 626.8 | 627.8 | 1.0 |
| 057 | 5,700 | 420 | 2,428 | 2.2 | 632.2 | 632.2 | 633.2 | 1.0 |
| 080 | 8,000 | 375 | 1,983 | 2.5 | 637.6 | 637.6 | 638.6 | 1.0 |
| 096 | 9,600 | 405 | 1,983 | 2.4 | 640.8 | 640.8 | 641.8 | 1.0 |
| 112 | 11,150 | 110 | 1,114 | 4.3 | 646.9 | 646.9 | 647.9 | 1.0 |
| 114 | 11,350 | 155 | 741 | 6.4 | 647.2 | 647.2 | 647.2 | 0.0 |
| 148 | 14,800 | 320 | 1,928 | 2.4 | 655.4 | 655.4 | 656.4 | 1.0 |
| 170 | 17,000 | 230 | 1,391 | 3.2 | 665.0 | 665.0 | 666.0 | 1.0 |
| 172 | 17,200 | 270 | 1,961 | 2.3 | 666.6 | 666.6 | 667.6 | 1.0 |
| 192 | 19,200 | 505 | 2,585 | 1.7 | 669.1 | 669.1 | 670.1 | 1.0 |
| 203 | 20,300 | 290 | 1,732 | 2.6 | 670.9 | 670.9 | 671.9 | 1.0 |
| 231 | 23,085 | 205 | 1,203 | 3.7 | 686.0 | 686.0 | 687.0 | 1.0 |

[1]Feet above mouth

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**PETREA BRANCH – TOWN CREEK**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Town Creek | | | | | | | | |
| 236 | 23,592 | 205 | 1,516 | 3.6 | 686.0 | 686.0 | 687.0 | 1.0 |
| 243 | 24,278 | 129 | 1,123 | 4.9 | 687.5 | 687.5 | 688.4 | 0.9 |
| 252 | 25,196 | 200 | 1,486 | 3.7 | 689.6 | 689.6 | 690.2 | 0.6 |
| 259 | 25,874 | 225 | 1,476 | 3.6 | 690.9 | 690.9 | 691.8 | 0.9 |
| 269 | 26,934 | 206 | 1,538 | 3.4 | 695.1 | 695.1 | 695.4 | 0.3 |
| 288 | 28,763 | 125 | 1,010 | 4.7 | 697.3 | 697.3 | 698.2 | 0.9 |
| 296 | 29,557 | 183 | 1,079 | 4.4 | 698.8 | 698.8 | 699.4 | 0.6 |
| 310 | 30,983 | 100 | 672 | 7.1 | 700.9 | 700.9 | 701.7 | 0.8 |
| 325 | 32,502 | 485 | 2,954 | 1.5 | 704.2 | 704.2 | 705.2 | 1.0 |
| 334 | 33,396 | 150 | 778 | 5.3 | 705.3 | 705.3 | 706.2 | 0.9 |
| 349 | 34,913 | 80 | 740 | 5.4 | 710.4 | 710.4 | 710.9 | 0.5 |
| 361 | 36,107 | 566 | 3,431 | 1.1 | 711.8 | 711.8 | 712.5 | 0.7 |
| 372 | 37,228 | 350 | 2,125 | 1.4 | 714.0 | 714.0 | 714.8 | 0.8 |
| 380 | 37,999 | 225 | 1,435 | 1.9 | 715.1 | 715.1 | 715.8 | 0.7 |
| 397 | 39,681 | 310 | 1,957 | 1.4 | 718.7 | 718.7 | 719.6 | 0.9 |
| 408 | 40,800 | 335 | 1,980 | 1.4 | 721.7 | 721.7 | 722.7 | 1.0 |
| 419 | 41,900 | 315 | 1,629 | 1.7 | 723.7 | 723.7 | 724.7 | 1.0 |
| 424 | 42,350 | 370 | 2,421 | 1.2 | 726.0 | 726.0 | 727.0 | 1.0 |
| 426 | 42,550 | 345 | 2,327 | 1.2 | 727.9 | 727.9 | 728.9 | 1.0 |
| 431 | 43,100 | 390 | 2,508 | 1.1 | 728.3 | 728.3 | 729.3 | 1.0 |
| 452 | 45,200 | 305 | 1,744 | 1.6 | 730.6 | 730.6 | 731.6 | 1.0 |

[1]Feet above mouth

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**TOWN CREEK**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Town Creek | | | | | | | | |
| 481 | 48,100 | 440 | 1,967 | 1.4 | 735.3 | 735.3 | 736.3 | 1.0 |
| 499 | 49,900 | 410 | 2,359 | 1.2 | 740.6 | 740.6 | 741.6 | 1.0 |
| 514 | 51,350 | 255 | 1,551 | 1.8 | 741.8 | 741.8 | 742.8 | 1.0 |
| 534 | 53,400 | 290 | 2,018 | 1.3 | 749.4 | 749.4 | 750.4 | 1.0 |
| 547 | 54,700 | 345 | 2,347 | 1.1 | 750.3 | 750.3 | 751.3 | 1.0 |
| 566 | 56,600 | 230 | 1,349 | 1.9 | 752.0 | 752.0 | 753.0 | 1.0 |
| 602 | 60,150 | 205 | 570 | 4.6 | 760.2 | 760.2 | 761.2 | 1.0 |
| 632 | 63,200 | 210 | 1,141 | 2.1 | 770.6 | 770.6 | 771.6 | 1.0 |
| 651[2]-663[2] | | | | | | | | |
| Town Creek Tributary 1 | | | | | | | | |
| 017 | 1,668 | 34 | 61 | 5.8 | 647.8 | 647.8 | 648.1 | 0.3 |
| 024 | 2,411 | 25 | 59 | 6.0 | 662.7 | 662.7 | 662.7 | 0.0 |
| 028 | 2,799 | 21 | 61 | 3.9 | 668.8 | 668.8 | 668.9 | 0.1 |
| 034 | 3,368 | 14 | 54 | 4.4 | 682.1 | 682.1 | 682.8 | 0.7 |
| 038 | 3,834 | 19 | 42 | 5.7 | 703.3 | 703.3 | 703.8 | 0.5 |
| 041 | 4,090 | 74 | 342 | 0.7 | 713.6 | 713.6 | 714.1 | 0.5 |

[1]Feet above mouth

[2] Floodway data not computed

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**TOWN CREEK – TOWN CREEK TRIBUTARY 1**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88) | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| Trexler Creek | | | | | | | | |
| 004 | 431 | 90 | 324 | 6.1 | 706.1 | 702.9[3] | 703.4 | 0.5 |
| 010 | 1,001 | 106 | 410 | 4.0 | 708.0 | 708.0 | 708.6 | 0.6 |
| 015 | 1,458 | 381 | 6,120 | 0.3 | 724.2 | 724.2 | 725.0 | 0.8 |
| 025 | 2,501 | 300 | 2,971 | 0.5 | 724.3 | 724.3 | 725.1 | 0.8 |
| 031 | 3,086 | 180 | 1,116 | 1.4 | 724.3 | 724.3 | 725.1 | 0.8 |
| 038 | 3,815 | 190 | 1,004 | 1.1 | 730.1 | 730.1 | 730.8 | 0.7 |
| 048 | 4,839 | 41 | 158 | 6.4 | 737.9 | 737.9 | 738.3 | 0.4 |
| 055 | 5,514 | 63 | 207 | 4.9 | 746.7 | 746.7 | 746.9 | 0.2 |
| 063 | 6,266 | 40 | 169 | 5.5 | 753.9 | 753.9 | 754.6 | 0.7 |
| 068 | 6,823 | 35 | 188 | 4.0 | 766.6 | 766.6 | 767.4 | 0.8 |
| 074 | 7,446 | 22 | 69 | 8.8 | 773.6 | 773.6 | 773.6 | 0.0 |
| 081 | 8,123 | 18 | 56 | 9.7 | 783.8 | 783.8 | 783.8 | 0.0 |
| 090 | 9,030 | 10 | 43 | 7.4 | 809.8 | 809.8 | 810.8 | 1.0 |
| 097 | 9,710 | 16 | 46 | 4.0 | 830.8 | 830.8 | 831.3 | 0.5 |
| Wildlife Tributary | | | | | | | | |
| 007 | 700 | 240 | 530 | 2.9 | 671.6 | 663.1[4] | 664.1 | 1.0 |
| 032 | 3,180 | 125 | 506 | 2.9 | 673.4 | 673.4 | 674.4 | 1.0 |
| 064 | 6,400 | 190 | 586 | 2.1 | 688.2 | 688.2 | 688.8 | 0.6 |
| 100[2]-134[2] | | | | | | | | |

[1]Feet above mouth
[2]Floodway data not computed
[3]Elevation computed without consideration of backwater effects from Crane Creek
[4]Elevation computed without consideration of backwater effects from Grants Creek

TABLE 14

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROWAN COUNTY, NC AND INCORPORATED AREAS**

**FLOODWAY DATA**

**TREXLER CREEK – WILDLIFE TRIBUTARY**

This FIS is based on the most up-to-date data available to FEMA or the State at the time of production; however, flood hazard conditions change over time. Communities or private parties may request flood map revisions at any time; certain types of revisions will require the submission of supporting data. FEMA or the State may also initiate a revision. FIS revisions may take several forms; these include Letters of Map Amendment (LOMAs), Letters of Map Revision based on Fill (LOMR-Fs), Letters of Map Revision (LOMRs), Physical Map Revisions (PMRs), and FEMA or the State-contracted restudies.

## 7.1 Letters of Map Amendment and Letters of Map Revision - Based on Fill

LOMAs and LOMR-Fs are documents issued by FEMA that officially remove a property and/or a structure from a Special Flood Hazard Area (SFHA), if data supporting the removal are submitted. LOMAs and LOMR-Fs are generally determinations regarding areas that are too small to be shown on a FIRM panel; consequently, the changes they describe become official without revising the FIRM or the FIS Report.

NFIP regulations require that the lowest adjacent grade (the lowest ground touching the structure) be at or above the 1% annual chance flood elevation for a LOMA to be issued. Currently, there is no fee for FEMA's review of a LOMA request, but the requester of a LOMA is responsible for providing all the information needed for the review, which may include structure and/or property elevations certified by a licensed land surveyor or professional engineer. Therefore, LOMA requesters may need to retain the services of a land surveyor or engineer.

A LOMA cannot be used for property on which fill has been placed. For those situations, a LOMR-F must be used. As a participant in the NFIP, a local government must adopt ordinances that meet the minimum Federal floodplain management standards, which are outlined in Section 60.3 of the NFIP regulations. For a number of reasons, these ordinances generally vary from community to community. Nonetheless, because the placement of fill within the floodplain can affect flood hazards in the surrounding area, additional information is needed before FEMA can process a LOMR-F request. Among the data required for a LOMR-F is the community acknowledgment form. This form is FEMA's assurance that all appropriate Federal, State, and local floodplain management requirements have been met. Furthermore, NFIP regulations require that the lowest adjacent grade (the lowest ground touching the structure) be at or above the 1% annual chance flood elevation for a LOMR-F to be issued removing the structure from the floodplain. Because LOMR-F requests are the result of changed physical conditions rather than limitations of scale or topographic definition, FEMA charges a fee for the review of a LOMR-F request. As with the LOMA, the requester of a LOMR-F is responsible for providing all supporting information, including structure and/or property elevation data.

In cases where property owners plan to add fill in the SFHA, NFIP regulations require plans and technical information to be submitted for review by FEMA before construction takes place. FEMA will issue a conditional LOMR-F stating how flood hazards would change and what portions of the property, if any, would remain in the SFHA if the project were built according to the submitted plans.

The issuance of a LOMA or LOMR-F ends the property owner's obligation to purchase flood insurance as a condition of Federal or federally backed financing. However, the property owner's mortgage company maintains the prerogative to require flood insurance as a condition of providing financing. Before attempting to obtain a LOMA or LOMR-F, property owners are advised to consult their mortgage companies regarding this policy. Even if the mortgage

company indicates that it will require flood insurance if a LOMA or LOMR-F is issued, it may be advantageous for property owners to request a LOMA or LOMR-F because flood insurance premiums are lower for properties removed from the SFHA than for properties that remain within the SFHA.

For additional information regarding LOMAs, LOMR-Fs, conditional LOMR-Fs, or current application fees, please call the FEMA Map Assistance Center toll-free information line at 1-877-FEMA MAP (1-877-336-2627).

## 7.2 Letters of Map Revision

A Letter of Map Revision (LOMR) is a document issued by FEMA and the NCFMP that revises an FIS Report and/or FIRM. A LOMR is used to change flood risk zones, floodplain and/or floodway delineations, flood elevations, or planimetric features such as road systems or corporate limits. A LOMR provides FEMA and the NCFMP with a cost-effective means of revising the FIS information without physically changing and reprinting the map or report itself. A portion of the FIRM panel or FIS Report showing the revised information is issued with the LOMR. The LOMR is sent to all affected communities and is archived in the communities' NFIP map repository for public reference.

In cases where a proposed project (such as construction in the 1% annual chance floodplain) would result in a significant rise in 1% annual chance water-surface elevations, NFIP regulations require the community to submit plans and technical information for review by FEMA before construction takes place. This assures communities participating in the NFIP that proposed projects meet minim um NFIP requirements. The result of the FEMA and NCFMP reviews is documented in a conditional LOMR.

For additional information regarding LOMRs, conditional LOMRs, or current application fees, please call the FEMA Map Assistance Center toll-free information line at 1-877-FEMA MAP (1-877-336-2627), or the NCFMP at 919-715-5711.

## 7.3 Physical Map Revisions

Physical Map Revisions (PMRs) are processed to incorporate information concerning conditions present in the community that are not reflected in the FIS, and involve distributing republished FISs that supersede the most current NFIP data in the community repository. PMRs may be initiated by a request from a community resident or agency, or FEMA may initiate a PMR to incorporate one or more LOMRs, to reflect significant changes in corporate limits, to correct errors, or to update flood hazards to match new information from an adjacent community's FIS. Due to the costs associated with updating and distributing FISs, map revisions will be processed as LOMRs rather than PMRs whenever possible. For more information regarding PMRs, please contact the FEMA Map Assistance Center toll-free information line at 1-877-FEMA MAP (1-877-336-2627) or the FEMA Regional Office at the address listed on the Notice to Flood Insurance Study Users page at the front of this report, or the NCFMP at 919-715-5711.

## 7.4 Contracted Restudies

The NFIP provides for a periodic review and restudy of flood hazards in a given community. FEMA accomplishes this through a national mapping needs assessment process that assigns priorities and allocates funds to sponsor or subsidize new flood hazard analyses used to update

FIS Reports. For more information regarding FEMA-contracted restudies, please contact the FEMA Map Assistance Center toll-free information line at 1-877-FEMA MAP (1-877-336-2627) or the FEMA Regional Office at the address listed on the Notice to Flood Insurance Study Users page at the front of this report.

## 7.5 Map Revision History

The current FIRM is a subset of the Statewide FIRM, showing flood hazard information for the entire geographic area of Rowan County. Previously, separate Flood Hazard Boundary Maps (FHBMs), Flood Boundary and Floodway Maps (FBFMs), and/or FIRMs were prepared for each identified flood prone jurisdiction within the county. Historical data relating to the NFIP maps prepared for each community prior to and including the June 16, 2009 North Carolina Statewide FIRM, which includes Rowan County, are presented in Table 15, "Community Map History."

Information pertaining to revised and unrevised flood hazards for each jurisdiction within Rowan County has been compiled into this FIS. Therefore, this FIS supersedes all previously printed FIS Reports, FHBMs, FIRMs, and/or FBFMs for all of the incorporated and unincorporated jurisdictions within Rowan County.

**Table 15—Community Map History**

| Community Name | Initial Identification Date | FHBM Revision Date | FIRM Effective Date | FIRM Revision Date |
|---|---|---|---|---|
| Town of China Grove | January 9, 1974 | None | September 29, 1978 | June 16, 2009 |
| Town of Cleveland | June 16, 2009 | None | June 16, 2009 | |
| Town of East Spencer | February 22, 1974 | July 9, 1976 | July 3, 1978 | December 11, 1981<br>June 16, 2009 |
| Town of Faith | October 17, 1975 | None | July 3, 1978 | June 16, 2009 |
| Town of Granite Quarry | March 8, 1974 | None | September 15, 1978 | June 16, 2009 |
| Town of Landis | June 7, 1974 | None | July 3, 1978 | June 16, 2009 |
| Town of Rockwell | March 8, 1974 | None | May 15, 1978 | June 16, 2009 |
| Rowan County (Unincorporated Areas) | July 28, 1978 | None | November 1, 1979 | June 16, 2009 |
| City of Salisbury | February 22, 1974 | November 19, 1976 | May 15, 1980 | June 16, 2009 |
| Town of Spencer | March 1, 1974 | None | September 29, 1978 | June 16, 2009 |

# Section 8.0 – Study Contracting and Community Coordination

## 8.1 Authority and Acknowledgments

The sources of authority for this FIS are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

This FIS revises and updates previous FISs for the geographic area of Rowan County. Table 16, "Authority and Acknowledgments," includes information for the single-jurisdiction FISs published for each community included in this countywide FIS, with the exceptions of the Town of Cleveland, as compiled from their previously printed FIS Reports. The table also includes information for this revision.

**Table 16—Authority and Acknowledgments**

| Community | FIS Dated | Study Contracted by | Data Source *(Study Contractor or Source of Data)* | Contract or Inter-Agency Agreement (IAA) Number | Work Completed in *(month and/or year)* |
|---|---|---|---|---|---|
| Rowan County and Incorporated Areas | June 16, 2009 | FEMA | North Carolina Floodplain Mapping Program | N/A | March 2007 |
| Rowan County (Unincorporated Areas) | May 1979 | Federal Insurance Administration | Moore, Gardner & Associates, Inc. | H-4046 | March 28, 1978 |
| Town of China Grove | March 1978 | Federal Insurance Administration | Moore, Gardner & Associates, Inc. | H-4046 | August 1977 |
| Town of East Spencer | January 1978 | Federal Insurance Administration | Moore, Gardner & Associates, Inc. | H-4046 | June 1977 |
| Town of East Spencer | December 1981 | Federal Insurance Administration | Moore, Gardner & Associates, Inc. | H-4046 | June 1977 |
| Town of Faith | January 1978 | Federal Insurance Administration | Moore, Gardner & Associates, Inc. | H-4046 | June 1977 |
| Town of Granite Quarry | March 1978 | Federal Insurance Administration | Moore, Gardner & Associates, Inc. | H-4046 | August 1977 |
| Town of Landis | January 1978 | Federal Insurance Administration | Moore, Gardner & Associates, Inc. | H-4046 | June 1977 |
| Town of Rockwell | November 1977 | Federal Insurance Administration | Moore, Gardner & Associates, Inc. | H-4046 | June 1977 |
| City of Salisbury | November 1979 | Federal Insurance Administration | Moore, Gardner & Associates, Inc. | H-4046 | September 1977 |

**Table 16—Authority and Acknowledgments**

| Community | FIS Dated | Study Contracted by | Data Source *(Study Contractor or Source of Data)* | Contract or Inter-Agency Agreement (IAA) Number | Work Completed in *(month and/or year)* |
|---|---|---|---|---|---|
| Town of Spencer | March 1978 | Federal Insurance Administration | Moore, Gardner & Associates, Inc. | H-4046 | August 1977 |

N/A – Not Applicable

This FIS Report was produced through a unique cooperative partnership between the State of North Carolina and FEMA. The State of North Carolina, through FEMA's Cooperating Technical Partner (CTP) Initiative, has become the first Cooperating Technical State (CTS) and will assume primary ownership of the NFIP FIRM panels for all North Carolina communities. This role has traditionally been fulfilled by FEMA. The North Carolina Floodplain Mapping Program is conducting flood hazard analyses and producing updated, digital FIRM panels. The hydrologic and hydraulic analyses and the FIRM panels were produced by Watershed Concepts, under contract with the State of North Carolina.

In August 2000, the North Carolina General Assembly allocated $23 million to Phase I of the Program. FEMA has contributed an additional $10.0 million towards the Program, as well as in-kind contributions of engineering, mapping, and program management services.

## 8.2 Consultation Coordination Officer's Meetings/Scoping Meetings

In general, for each FIS an initial Consultation Coordination Officer's (CCO) meeting is held with representatives from FEMA, the communities, and the study contractors to explain the nature and purpose of the FIS and to identify the streams to be studied by detailed methods. A final CCO meeting is held with representatives from FEMA, the communities, and the study contractors to review the results of the study.

For each FIS produced by the State of North Carolina and FEMA's unique partnership, an Initial Scoping Meeting is held with representatives from FEMA, the county, the incorporated communities, and the State of North Carolina. A Final Scoping meeting is held to review the Draft Basin Plan and finalize the streams to be studied by detailed methods. This information is then used to create the Final Basin Plan.

The dates of the initial and final CCO meetings held for Rowan County were compiled from their previous FIS Reports and are shown in Table 17, "Consultation Coordination Officer's Meetings." Dates are not shown for the Town of Cleveland because this community never had previously printed FISs.

## Table 17—Consultation Coordination Officer's Meetings

| Community Name | For FIS Dated | Initial CCO Date | Attended by | Final CCO Date | Attended by |
|---|---|---|---|---|---|
| Rowan County (Unincorporated Areas) | May 1979 | June 22, 1976 | Representatives from the Federal Insurance Administration and Rowan County | December 12, 1978 | Representatives from Moore, Gardner & Associates, Inc., the Federal Insurance Administration, and Rowan County |
| Town of China Grove | March 1978 | June 22, 1976 | Representatives from the Federal Insurance Administration and the Town of China Grove | October 5, 1977 | Representatives from Moore, Gardner & Associates, Inc., the Federal Insurance Administration, and the Town of China Grove |
| Town of East Spencer | January 1978 and December 1981 | June 22, 1976 | Representatives from the Federal Insurance Administration and the Town of East Spencer | August 4, 1977 | Representatives from Moore, Gardner & Associates, Inc., the Federal Insurance Administration, and the Town of East Spencer |
| Town of Faith | January 1978 | June 22, 1976 | Representatives from the Federal Insurance Administration and the Town of Faith | August 4, 1977 | Representatives from Moore, Gardner & Associates, Inc., the Federal Insurance Administration, and the Town of Faith |
| Town of Granite Quarry | March 1978 | June 22, 1976 | Representatives from the Federal Insurance Administration and the Town of Granite Quarry | October 5, 1977 | Representatives from Moore, Gardner & Associates, Inc., the Federal Insurance Administration, and the Town of Granite Quarry |
| Town of Landis | January 1978 | June 22, 1976 | Representatives from the Federal Insurance Administration and the Town of Landis | August 8, 1977 | Representatives from Moore, Gardner & Associates, Inc., the Federal Insurance Administration, and the Town of Landis |

**Table 17—Consultation Coordination Officer's Meetings**

| Community Name | For FIS Dated | Initial CCO Date | Attended by | Final CCO Date | Attended by |
|---|---|---|---|---|---|
| Town of Rockwell | November 1977 | June 22, 1976 | Representatives from the Federal Insurance Administration and the Town of Rockwell | June 1, 1977 | Representatives from Moore, Gardner & Associates, Inc., the Federal Insurance Administration, and the Town of Rockwell |
| City of Salisbury | November 1979 | June 22, 1976 | Representatives from the Federal Insurance Administration and the City of Salisbury | June 6, 1978 | Representatives from Moore, Gardner & Associates, Inc., the Federal Insurance Administration, and the City of Salisbury |
| Town of Spencer | March 1978 | June 22, 1976 | Representatives from the Federal Insurance Administration and the Town of Spencer | October 5, 1977 | Representatives from Moore, Gardner & Associates, Inc., the Federal Insurance Administration, and the Town of Spencer |

*Data Not Available

A Preliminary Meeting was held in Salisbury, North Carolina on June 26, 2007 to disseminate and review the FIS Report and FIRM panels for the Yadkin River Basin portion of Rowan County. This meeting was attended by community officials from Rowan County and the Incorporated Communities, along with representatives from the State of North Carolina, Dewberry & Davis LLC, and Watershed Concepts. A Public Participation Meeting was held on August 14, 2007, to review and discuss the FIS Report and FIRM panels for the Yadkin River Basin portion of Rowan County in a public setting.

The dates of the Initial and Final Scoping Meetings held for Rowan County are shown in Table 18, "Scoping Meetings."

## Table 18—Scoping Meetings

| Community Name | Basin | Initial Scoping Date | Attended by | Final Scoping Date | Attended by |
|---|---|---|---|---|---|
| Rowan County (Unincorporated Areas) | Yadkin | January 8, 2004 | Representatives of Rowan County, the National Flood Insurance Program, the State of North Carolina, and Dewberry | January 18, 2006 | Representatives of Rowan County, the National Flood Insurance Program, the State of North Carolina, and Dewberry |
| City of Salisbury | Yadkin | January 8, 2004 | Representatives of the City of Salisbury, the National Flood Insurance Program, the State of North Carolina, and Dewberry | January 18, 2006 | Representatives of the City of Salisbury, the National Flood Insurance Program, the State of North Carolina, and Dewberry |
| Town of Granite Quarry | Yadkin | January 8, 2004 | Representatives of the Town of Granite Quarry, the National Flood Insurance Program, the State of North Carolina, and Dewberry | * | * |
| Town of Spencer | Yadkin | January 8, 2004 | Representatives of the Town of Spencer, the National Flood Insurance Program, the State of North Carolina, and Dewberry | * | * |
| Town of China Grove | Yadkin | January 8, 2004 | Representatives of the Town of China Grove, the National Flood Insurance Program, the State of North Carolina, and Dewberry | * | * |

## Table 18—Scoping Meetings

| Community Name | Basin | Initial Scoping Date | Attended by | Final Scoping Date | Attended by |
|---|---|---|---|---|---|
| Town of Landis | Yadkin | January 8, 2004 | Representatives of the Town of Landis, the National Flood Insurance Program, the State of North Carolina, and Dewberry | * | * |

*Data Not Available

## Section 9.0 – Guide to Additional Information

This is a multivolume FIS. Each volume may be revised separately, in which case it supersedes the previously printed volume. Users should refer to the Table of Contents in Volume 1 for the current date of each volume; volumes bearing these dates contain the most up-to-date flood hazard data.

FISs have been prepared for Mecklenburg County and Incorporated Areas (FEMA, 2009), Davie County and Incorporated Areas (FEMA, 2008), Iredell County and Incorporated Areas (FEMA, 2008), Cabarrus County and Incorporated Areas (FEMA, 2008), Stanly County and Incorporated Areas (FEMA, 2008), and Davidson County and Incorporated Areas (FEMA, 2009). All FIRM panels created for the State of North Carolina are produced in a seamless statewide format; however, FIS Reports are produced for individual counties.

Copies of FIRM panels are available for a nominal fee. To obtain a copy of the current flood map for a specific community, contact the FEMA Map Service Center at 1-800-358-9616. To facilitate the processing of your request, please review the current flood map on file at your local community repository and obtain the panel number in which you are interested. If necessary, users may also order a FIRM Index from the Map Service Center to determine the appropriate panel numbers. The Map Service Center also accepts orders for the Community Status Book and the Flood Insurance Manual. The FIS Report, FIRM panels, and digital data used to produce the FIRM panels are available online at www.ncfloodmaps.com.

Information concerning the data used in the preparation of this FIS, contained in an Engineering Study Data Package, may be obtained by contacting the FEMA Regional Office at the address listed on the Notice to Flood Insurance Study Users page at the front of this report.

Table 19, "Additional Information," contains useful contact information regarding this FIS, the FIRM, and data.

**Table 19—Additional Information**

| FEMA and the NFIP | |
|---|---|
| FEMA website | www.fema.gov |
| NFIP Internet website | http://www.fema.gov/business/nfip/ |
| **Other Federal Agencies** | |
| USGS website | www.usgs.gov/ |
| Hydraulic Engineering Center website | www.hec.usace.army.mil/ |
| **State Agencies and Organizations** | |
| CGIA website | www.cgia.state.nc.us/ |
| NCGS website | www.ncgs.state.nc.us/ |
| NCFMP website | www.ncfloodmaps.com |

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